

AN EXAMINATION OF POTENTIAL CORRELATION  
BETWEEN ABNORMAL PERSONALITY AND PLANETARY POSITION

by

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## TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS . . . . .	i
LIST OF TABLES . . . . .	iv
LIST OF FIGURES . . . . .	v
 Chapter	
I. INTRODUCTION . . . . .	1
II. BACKGROUND TO THE PROBLEM . . . . .	4
A. Review of Basic Astrological Concepts . . . . .	4
1. Summary of the Present Situation . . . . .	4
2. The Astrological View of the Solar System . . . . .	5
3. Signs of the Zodiac . . . . .	6
4. Astrological Houses . . . . .	13
5. Planetary Aspects . . . . .	15
B. Review of the Literature . . . . .	16
1. Studies Refuting Astrological Prediction . . . . .	16
2. Studies Supporting Planetary Influence on Earth . . . . .	19
a. Geological and Biological Phenomena . . . . .	19
b. Organic Behavior . . . . .	20
c. Human Physiology . . . . .	21
d. Occupational Status . . . . .	22
e. Human Behavior . . . . .	23
III. DEFINITION OF THE PROBLEM AND STATEMENT OF THE PROBLEM . . . . .	26

Chapter	Page
IV. METHODOLOGY . . . . .	28
A. The Leary Interpersonal System of Personality Diagnosis . . . . .	28
1. Administration of MMPI and ICL . . . . .	33
2. Standardization of the Test Scores . . . . .	35
B. Subjects . . . . .	36
C. Procedures . . . . .	36
1. Test Administration . . . . .	36
2. Group Selection Criteria . . . . .	38
V. RESULTS . . . . .	40
A. Leary Level Calculations . . . . .	40
B. MMPI Calculations . . . . .	41
C. Potential Trends . . . . .	44
VI. DISCUSSION . . . . .	49
A. Discussion of Methodological Limitations . . . . .	49
B. Consideration of the Influence of Planets on Life Activity . . . . .	51
C. Implications of the Revealed Trends . . . . .	53
D. Concluding Remarks and Suggestions for Further Research . . . . .	54
VII. SUMMARY . . . . .	56
APPENDIX A . . . . .	58
APPENDIX B . . . . .	61
APPENDIX C . . . . .	63
REFERENCES . . . . .	109



# LIST OF TABLES

Table	Page
I. Examination of the 23 Chi-Square Comparisons that Reached Significance for Leary Level I . . . . .	42
II. Examination of the 23 Chi-Square Comparisons that Reached Significance for Leary Level II . . . . .	43
III. Examination of the 23 Chi-Square Comparisons that Reached Significance for Individual MMPI Scales . . . . .	45
IV. Analysis of the 23 Significant Chi-Square Comparisons Obtained in Relation to the Frequency Expected . . . . .	46
V. Distribution of the 7 Significant Aspect Comparisons Obtained in Relation to the Frequency Expected . . . . .	48

## LIST OF FIGURES

Figure	Page
1. Schematic Diagram of the Earth Oriented in the Plane of the Ecliptic . . . . .	7
2. Schematic Diagram of the Zodiac Belt, Sign Divisions, and Backward Slippage of Point Gamma Due to Precession of the Equinoxes . . . . .	9
3. Schematic Diagram of the Division of the Zodiacal Belt into "Element" Groups . . . . .	10
4. Schematic Illustration of Precession of the Equinoxes . . .	12
5. The Leary Interpersonal Diagnosis Personality Pattern . . .	31

## CHAPTER I

### INTRODUCTION

For thousands of years astrology has captured the imagination and concern of "scientists" of the day. Both kings and courtiers turned to the skies for "accurate" interpretation of their lives. Gradually, due to the disfavor of the Christian church and increasingly scientific explanation of world phenomena, astrology's advocates dwindled. Recently, however, western culture has experienced an upsurge in interest in this field. Curiosity has been rekindled.

Clinical psychologists and psychiatrists have begun to take part in the use of this resurgent pseudo-science. Perhaps the most famous psychiatric adherent is Carl G. Jung (1955), who used horoscopes of his clients in their treatment. Not much research has been done on the topic of astrology in the field of psychology. Nonetheless, there is ample evidence that it is being used by psychiatrists and psychologists. Popular magazines are full of references to its use clinically (Darrach, 1960, p. 106; Newsweek, 1969, p. 78), but for the most part adherents are not identified publicly. It may well be out of fear of ostracism that they choose to remain anonymous.

A few of these users are identified. Dr. Joseph Henderson, a San Francisco psychiatrist, claims to use zodiac signs meaningfully in his work (Taves, 1969, p. 100). Similarly, Dr. Ralph Metzner, a psychologist with Stanford University's counseling and testing center, claims to use it in approximately one quarter of his cases (Astrology:

Fad and Phenomenon. Time, 1969, p. 48).

Zipporah Dobyns (1970), a practicing Ph.D. clinical psychologist in Los Angeles and the present director of the International Society for Astrological Research, states:

It is my firm conviction that the psychotherapy or counseling of the future will use the horoscope as routinely as we now use the interview and background data on the subject. (p. 2)

Moreover, both Stanford and New York University have included astrology as part of their introductory psychology courses (Astrology: Fad and Phenomenon. Time, 1969, p. 48). In actuality, more psychologists and psychiatrists are probably using astrological information but are hesitant to admit it publicly.

The very fact that astrology is presently being applied clinically opens it to the necessity of evaluation by psychologists. Yet, contrary to what one would expect from their claims of lack of bias, the majority of researchers manifest reactions ranging from ridicule of, to active opposition to undertaking controlled study on this topic. Considering the fact that somewhere between 30% to 60% of the population admit to believing there is at least some truth to be found in astrology (Gauguelin, 1969, p. 60), this a priori rejection of astrology as a legitimate area for investigation is disturbing.

It is my feeling that, since astrology deals directly with personality determination and is presently being applied to some individuals seeking the aid of mental health professionals, it needs to be looked into further by psychologists. My interest and purpose is neither in substantiating nor negating classical astrological theory as such. Rather, I am interested in conducting a research study designed

to see if significant correlations of any kind can be found between psychologically measured human personality characteristics and the planetary positions of individuals at birth.

## CHAPTER II

### BACKGROUND TO THE PROBLEM

When the moon is in the 7th house  
And Jupiter aligns with Mars,  
Then peace will guide the planets  
And love will steer the stars.  
This is the dawning of the Age of Aquarius...  
(From the Broadway musical "Hair")

#### A. Review of the Basic Astrological Concepts

##### 1. Summary of the Present Situation

The daily horoscope commonly found in newspapers and popular magazines does not begin to approach the level of sophistication required of the knowledgeable astrologer. Astrological prediction, as it is practiced by its experts, is far more complex than the simple single factor approach most commonly used. No good astrologer puts any stock in this simplistic sun-sign approach. As astrologer and psychologist, Zipporah Dobyns states:

Unfortunately, the boom [in astrology] has so far been largely limited to popular astrology, using a single factor (sun-sign) out of the hundreds considered in a genuine horoscope, and providing a portrait of an individual on a level with using a single question from the MMPI out of a complex battery of psychological tests to evaluate a personality. To judge astrology by this kind of nonsense would be equivalent to judging psychology by the self-analysis articles in popular women's magazines.

(Dobyns, 1970, p. 2) [brackets mine]

It is beyond both my knowledge and the scope of this study to offer a complete explanation of astrological theory. However, an acquaintance with certain basic concepts in astrology is necessary to

understand the approach taken in my research.

Although the methods of interpretation have undergone changes from time to time throughout history, current astrological predictions still find their source in the Tetrabiblos, a second century A.D. collection by the Alexandrian astrologer Claudius Ptolemaeus. Astrology presently incorporates several divisions. Astrometeorology uses planetary information in weather forecasting. Electoral astrology considers the selection of the best timing and/or person for a given purpose. Horary astrology is used to determine the answers to questions based on the horoscope for the time when the question was posed. Medical astrology concerns itself with the treatment of accidents of illness by relating the time of onset to the patient's date of birth. Mundane astrology analyzes and predicts the development of nations, states, businesses, and races on the basis of their time of origin. Finally, genetheliacal (natal) astrology involves making judgments about the personality and development of individuals based on the positions of the planets at an individual's time of birth. It is this last astrological division, which purportedly encompasses personality assessment and prediction, that my study attempts to examine.

## 2. The Astrological View of the Solar System

Classical astrology uses three main symbolic categories: signs of the Zodiac, houses, and planetary aspects. In order to understand the theory involved in these three factors it is first necessary to examine the solar system from an astrological point of view. The "science" of astrology was already highly developed and refined long before Copernicus' heretical assertion that the earth did not lie at the center of

the universe. While scientists (and astrologers) subsequently abandoned belief in the Ptolemaic geocentric system, astrologers continue to observe this convention in drawing up their charts.

Astrology is concerned with the "planets" of the solar system, which astrologically include the sun, moon, and nine planets. The "heavens" are conceptualized as a giant sphere with the earth at the center. Since charting the positions of the planets relative to the earth is done two-dimensionally, it was necessary to choose some plane of reference. The plane of the ecliptic was the one selected; that is the plane of the earth's orbit around the sun. The ecliptical north and south poles lie perpendicular to the plane of the ecliptic just as the earth's north and south poles lie perpendicular to the plane of the equator. If one conceives of himself as being out in space looking down on the solar system, all of the planets would be observed to revolve around the sun within 8 degrees on either side of this plane defined by the earth's path of rotation (Figure 1). This circular belt, 16 degrees wide, is called the Zodiac. A horoscope is simply the two-dimensional chart of the planet positions drawn in the plane of the ecliptic.

### 3. Signs of the Zodiac

The circle of the Zodiac represents the 360° annual period of the earth's rotation around the sun, which by convention is astrologically represented as the period of the sun's rotation around the earth. This zodiacal circle is in turn divided into 12 divisions of 30° each. These divisions constitute the well-known Signs of the Zodiac: Aries, Taurus, Gemini, Cancer, Leo, Virgo, Libra, Scorpio, Sagittarius, Capricorn,



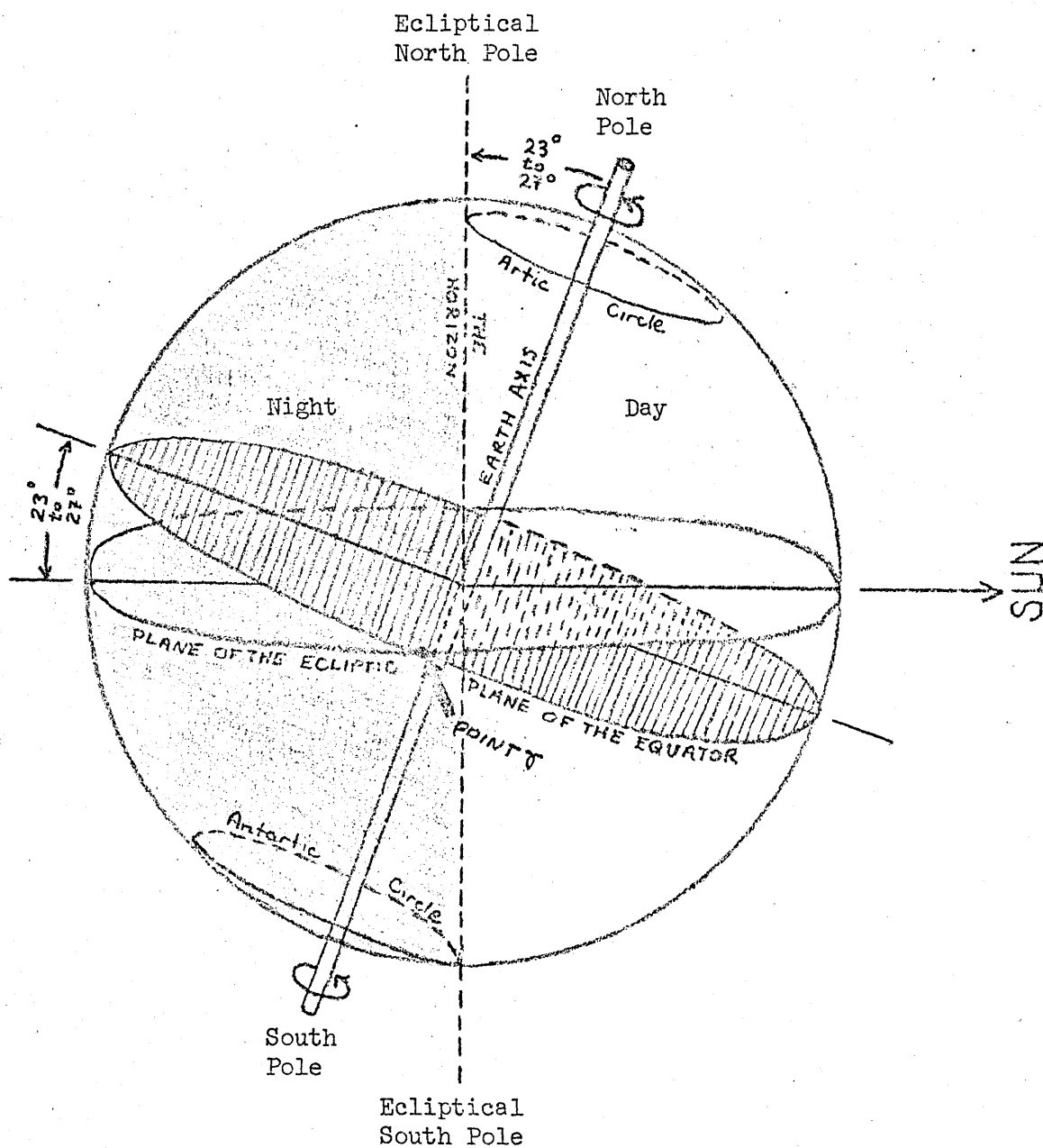


Figure 1

Schematic Diagram of the Earth  
Oriented in the Plane of the Ecliptic

Aquarius, and Pisces.

Since the earth's circular orbit has no fixed beginning or end, it was necessary to choose some arbitrary point at which to begin. The point selected, called point gamma, is defined as the point of intersection of the ecliptic with the earth's equator (see Figure 1). Point gamma is defined astrologically as  $0^{\circ}$  - Aries. It occurs on March 21 at the time of the vernal (spring) equinox.

The signs of the Zodiac are further associated with the four basic "elements" of medieval philosophy - fire, water, air, and earth. These subdivisions are arrived at by inscribing four equilateral triangles within the zodiacal circle with the equinoctial and solstitial points serving as apexes. Thus, starting with the vernal equinox, "fire" signs (Aries, Sagittarius, and Leo) are defined by the first triangle. "Water" signs (Cancer, Scorpio, and Pisces) are defined by the second triangle which has the summer solstice as apex, "air" signs (Libra, Aquarius, and Gemini) by the autumnal equinox, and "earth" signs (Capricorn, Taurus, and Virgo) by the winter solstice (See Figure 3). Classical astrology maintains that common characteristics are shared by signs of the same element (e.g., water signs are receptive, impressionable, fruitful, perceptive) and integrates these factors into the final horoscope personality description.

Several astrological concepts continue to be used cartologically in spite of the fact that their origin has become obscured. Both the tropics of Cancer and of Capricorn are commonly defined as delineations on the earth's surface of the points at which the sun is farthest north and south of the equator (see Figure 2). These two imaginary cartographical lines are traced out by the sun over a 24 hour period at the

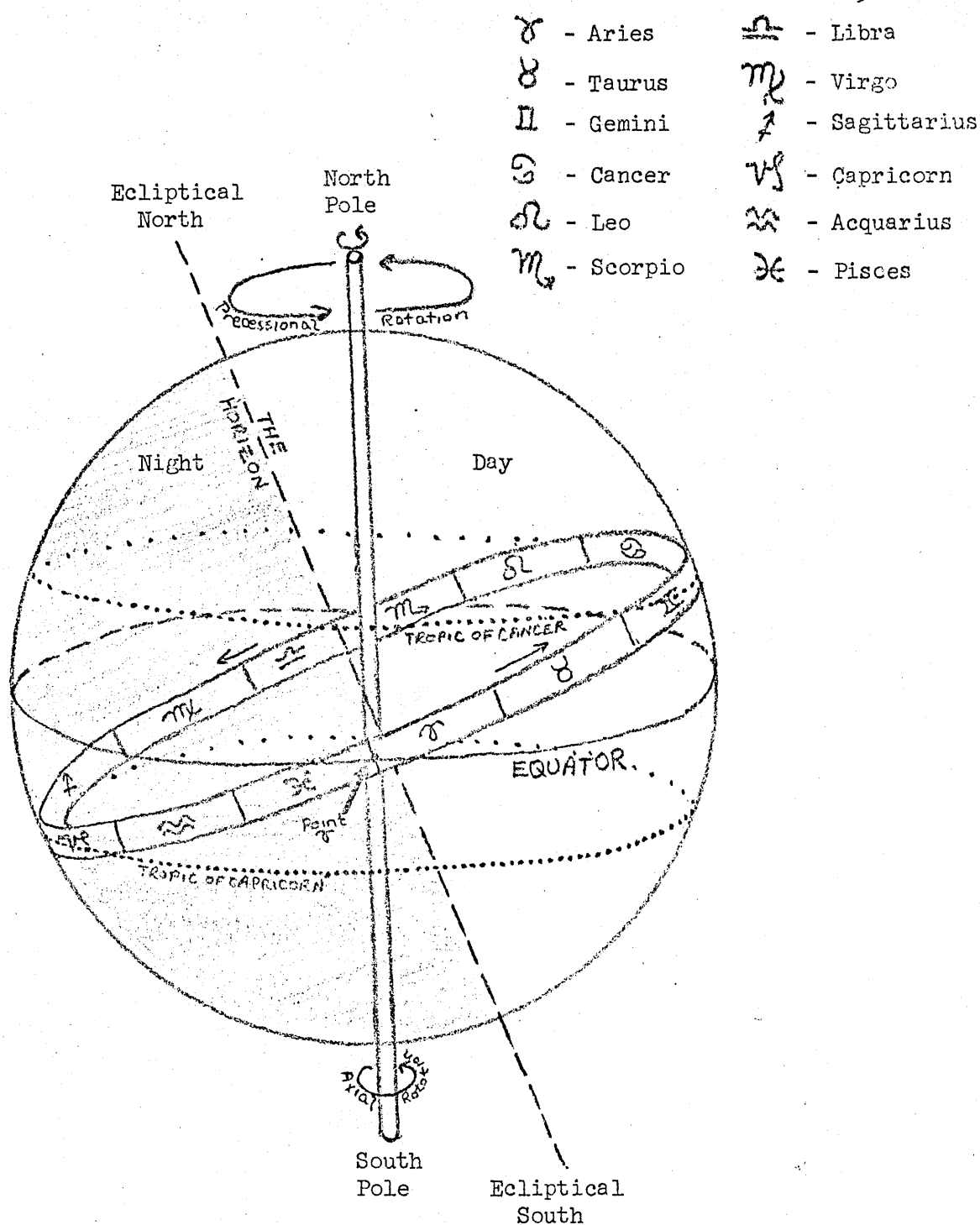


Figure 2

Schematic Diagram of the Zodiacal Belt,  
Sign Divisions, and Backward Slippage of  
Point Gamma Due to Precession of the Equinoxes

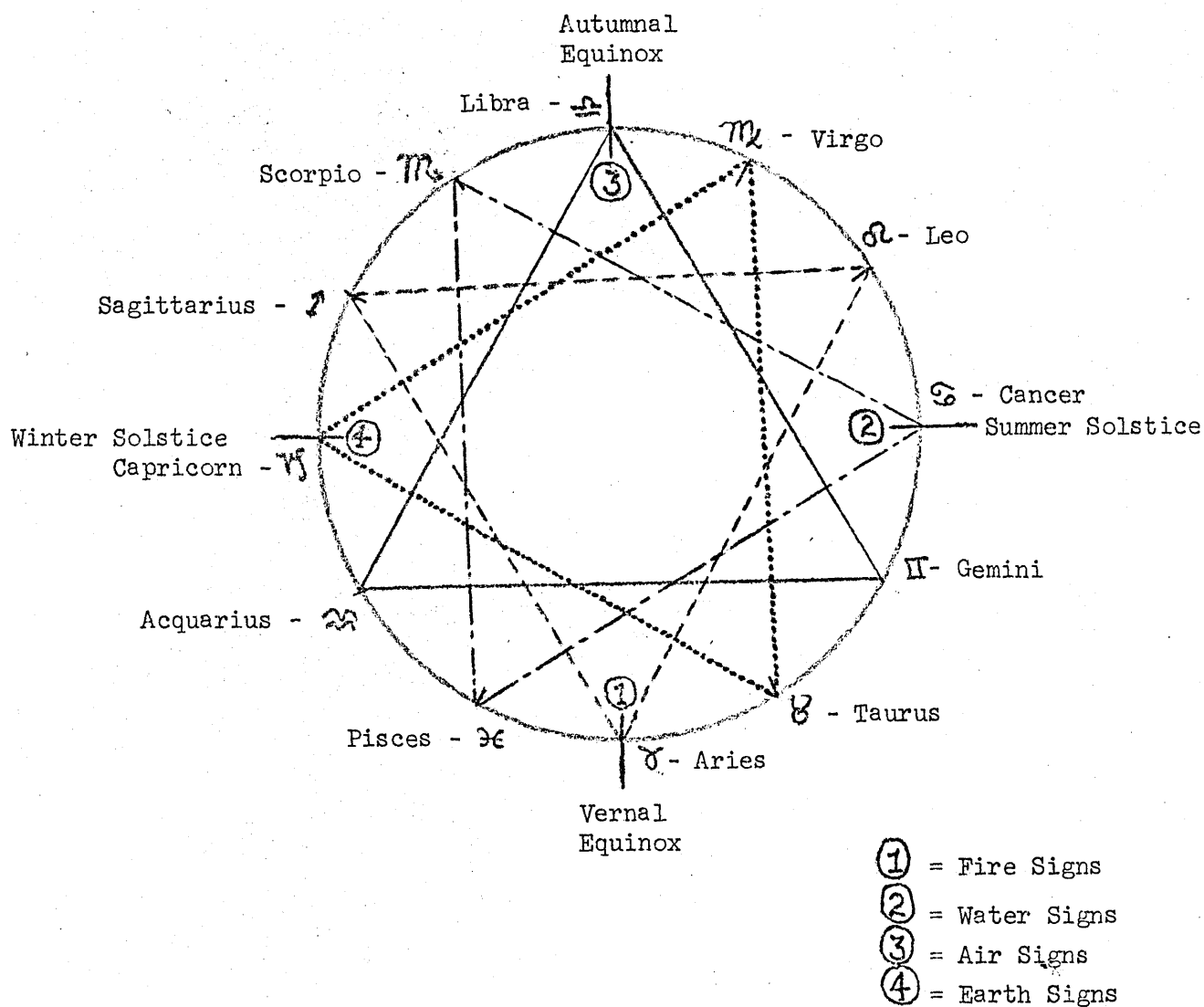


Figure 3

Schematic Diagram of the Division of the Zodiacal Belt into "Element" Groupings

times of the summer and winter solstices. These solstices define the first days of summer and winter. The fact that the names for these two tropics are of astrological origin often goes unrecognized. The summer and winter solstices occur on June 21 and December 21, respectively - the days on which the sun first enters the astrological signs of Cancer and Capricorn. Similarly, the arctic and antarctic circles are most often thought of by scientists as the farthest points north or south where the sun is visible at noon on the first days of winter and summer, respectively (see Figure 1). They fail to realize that the reason the arctic circle was originally placed on maps was astrologically based. It described the path followed by the ecliptical north pole during one full rotation of the earth.

Point gamma, the intersection of the ecliptic and the equator, plays an important role in astrological interpretation. Due to an astronomical phenomenon known as precession of the equinoxes, this point of intersection has been gradually slipping backward from the first degree of Aries through the constellation Pisces. As the earth moves both around the sun and on its own axis, its motion actually describes a path similar to that of a top or gyroscope. When a spinning gyroscope slows down, its axis also wobbles slightly. The motion of the earth's axis actually traces out a cone centered around the ecliptical axis (see Figures 2 and 4). The period of this precession is approximately 26,000 years; that is approximately  $1^\circ$  of movement every 81 years. Because of this phenomenon the earth's seasons are drifting backward through the Zodiac, with a resulting complete inversion of the time of the seasons every 13,000 years.

What is more significant for present astrologers, however, is

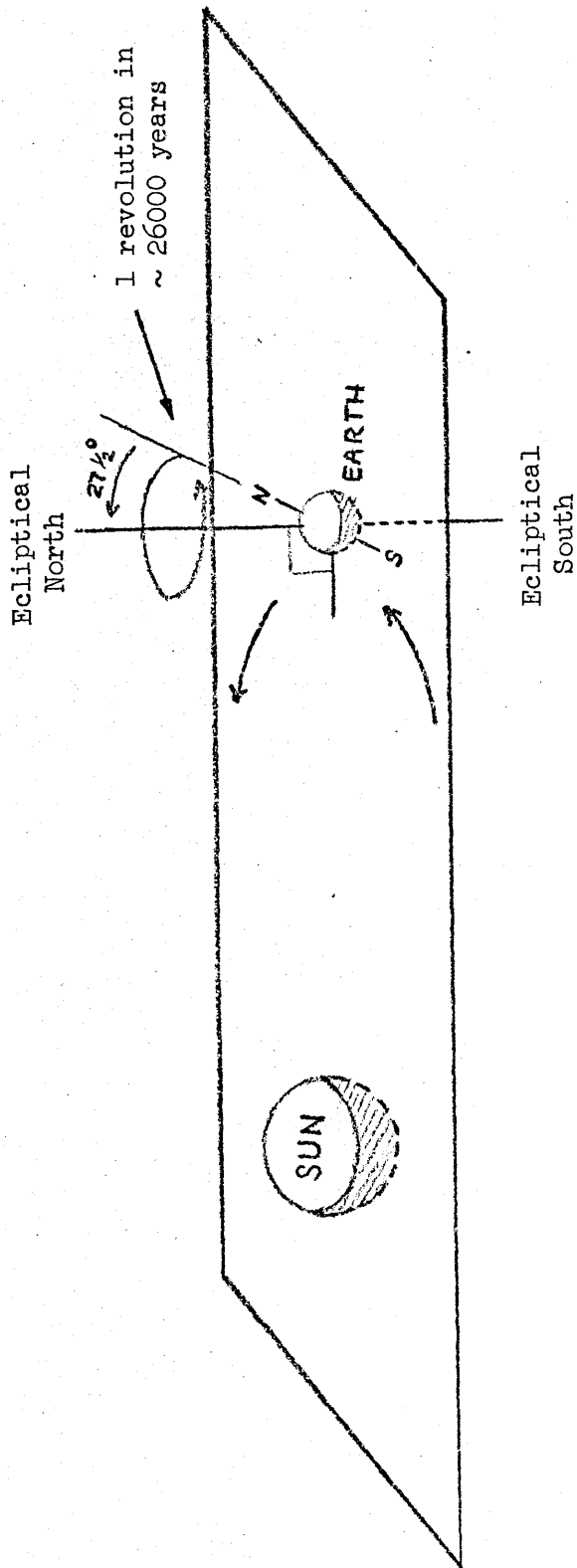


Figure 4

Schematic Illustration of Precession of the Equinoxes

the fact that as the earth wobbles forward, the signs are shifting gradually backward through the Zodiac. What is commonly thought of as the spring equinox ( $0^{\circ}$  - Aries) is now actually resting at  $5\frac{1}{2}^{\circ}$  - Pisces.

The position of point gamma determines the current astrological "age." Earth is presently in the Piscean Age. In 446 years the Age of Aquarius will begin. An age lasts about 2160 years.

This shift in point gamma has given rise to a heated ongoing disagreement as to whether horoscopes should be cast according to the original Ptolemaic scheme (which was correct for its time) or in terms of the true sidereal Zodiac. Adherents of the latter attempt to adjust for the error by calculating "sidereal" horoscopes based on stellar rather than earth time. In my study, results are calculated using both horoscopic methods so as not to ignore either possibility.

#### 4. Astrological Houses

Just as the Zodiacal circle represents the annual period of rotation of the earth around the sun, the circle of the houses represents the daily period of rotation of the earth around its axis. It is divided into 12 numbered houses just as the circle of the Zodiac is divided into 12 named signs. From a geocentric point of view, each planet in the solar system will appear to cross all twelve houses in one day just as the sun appears to cross all signs of the Zodiac in one year. Numbering is in the reverse direction from the apparent daily motions of the planets. Once again, some beginning point was needed in order to define the position of the 12 houses during the 24 hour diurnal period. The point chosen was called the ascendant; the ascendant is considered the cusp or beginning

line of the 1st house.

The ascendant is defined as the point on the ecliptic which is rising over the eastern horizon at the moment of birth (see Figure 1). The sign of the Zodiacal belt in which the ascendant is found is defined as the rising sign, because it is the sign associated with the ecliptic at sunrise (see Figure 2). The rising sign varies depending on the location, date, and time of birth.

The ascendant is dependent upon two factors: the longitude and latitude of the place of birth, and the day of the year. Because of the  $23^{\circ}$  tilt of the earth's axis from the ecliptical plane and its annual rotation around the sun (see Figure 4), the time of sunrise varies according to birth date and location. An example of this is seen in the fact that a person born in Lawrence, Kansas, at sunrise April 22 would be born at 5:34 AM. Two days later a birth at sunrise would occur at 5:51 AM. Similarly, cities located along the same longitudinal coordinate may experience different times for sunrise due to their different latitudinal location. Mexico City lies due south of La Cross, Kansas, but on the first day of summer the sun rises at La Cross 48 minutes earlier than it does in Mexico City (Omarr, 1965, p. 141). These changes reflect the fact that as the earth moves around the sun the number of daylight hours changes depending on the time of the year and location on the earth's surface. Calculation of the ascendant involves astronomical conversions to determine the precise sidereal time of the ascendant from standardized earth times of birth. (For a more detailed explanation of the conversion process consult Omarr, pp. 134-153).



## 5. Planetary Aspects

The third important astrological factor is planetary aspects. Aspects are simply the angles formed between different planets as measured from the earth on the ecliptic. Astrologers claim that certain of these relationships have special meanings for prediction purposes - the angles of  $0^\circ$ ,  $60^\circ$ ,  $90^\circ$ ,  $120^\circ$ , and  $180^\circ$  being most significant. Conjunction occurs when there is no angular separation between two planets. This configuration is considered neutral but influencable by other relationships. Sextile is defined as an angle of  $60^\circ$  between planets, with earth as the vertex. Trine defines an angle of  $120^\circ$  between planets. Both sextile and trine are considered "beneficent" or positive aspects. Planets in square ( $90^\circ$  separation) and opposition ( $180^\circ$  separation) are considered "disharmonious." In actual interpretations, astrologers do not require the presence of an exact angular separation for planets to be considered in a specific aspect. A leeway of 5 degrees in either direction is permitted.

Traditional astrology attributes definite characteristics, both positive and negative, to each of the planets. These planets influence the interpretation of the signs and houses in which they are located. Their symbolism becomes as detailed as that of the signs and houses; whether their influence is positive or negative depends upon the relationship of each planet to all the others. Classically, a planet in beneficent relationship to another planet brings out the positive characteristics of both. Disharmonious relationships lead to manifestations of the negative characteristics of both.

The farther one goes into astrology, the more complex interpreting factors and relationships become. Prediction involves synthesizing

the symbolism associated with each of the three factors - signs, houses, and aspects. Ultimately, so many possible combinations of factors exist to be considered that cogent interpretation becomes an art.

The research undertaken in this study is not involved in any attempt to substantiate classical interpretation. Rather, it is an empirical study aimed at exploring the possibility of the existence of significant relationships of any kind, regardless of whether or not they agree with classical predictions. It may be that astrological variables of sociological or psychological significance may exist other than the traditional interpretations. This possibility is what this project attempts to explore.

## B. Review of the Literature

### 1. Studies Refuting Astrological Prediction

Of the small amount of research which has been done, the majority fails to support classic astrological prediction. Farnsworth (1939), investigating approximately two thousand musicians, found no support for the astrological prediction that their births should group in Libra (September 23 - October 22), the sign classically associated as the sign under which prospective musicians are most apt to be born. L. H. Couderc, a Paris psychologist, advertised himself as an astrologer in newspapers (Fraud in Your Future? Newsweek, 1964, p. 56). To all of the hundreds of inquiries he sent an identical mimeographed sheet of ambiguous generalities. This produced over 200 letters praising his accuracy and perceptiveness. Sechrest and Bryan (1968) conducted a similar but much more controlled experiment. Eighteen mail-order astrologers who offered marital advice were consulted about a supposed impending marriage. Results

showed that in spite of the fact that exactly the same birth information was submitted in all cases, resultant advice varied consistently according to tone and to subjective information included in the letters. Astronomer Bart J. Bok (Gauquelin, 1969, p. 143) found no predisposition for people born under any particular sun sign to go into any particular profession; and Gauquelin (1969), a French psychologist and statistician, sampling over 25,000 celebrities, found the zodiacal sign distributions could be attributed to chance for sun, moon, and ascendant positions.

In another investigation Gauquelin (1967) selected the files of 623 of the most violent and notorious criminals on record in Paris, the majority of whom were ultimately sentenced to the guillotine. Traditional laws of astrology would predict a loading of the planet Mars (connected with blood, violence and crime) in the eighth house (house of death for oneself or others) or in the twelfth house (which rules trials and jails). Examination of their horoscopes, however, showed Mars randomly distributed among all twelve houses.

Similarly, Gauquelin (1969) has systematically refuted many studies which astrologers fall back on for support. Re-examining Commandant Paul Choisnard's study (1921) purporting to show a law of Zodiac signs of "superior natures," he claimed to find, using 123 subjects, "a remarkable grouping of these ascendants in the triple zone consisting of Libra, Aquarius, and Gemini (p. 138)" — air signs supposedly being more intelligent. Gauquelin found that this was merely the result of natural tilt and rotation factors which caused a differential length of passage for different signs of the Zodiac at the ascendant. Choisnard had failed to take into account the natural effect of astronomic conditions in Europe at the time of his investigation.

A second study on 200 deaths by Choisnard (1921) claimed to support the role played by transits of Mars and Saturn in relation to the sun at birth in predicting death. Choisnard concluded, "Men do not die indiscriminately under any pattern of the sky (p. 140)." Gauquelin (1969), rerunning the experiment on a much larger sample (7,482), found all results were random distributions.

Karl Ernst Krafft (1939) tried to prove that certain configurations of stars were less favorable to the development of an artist. Examining 115 musicians with a conjunction of the moon with Uranus, he showed a considerable concentration of births in some signs and complete voids in others. Once again, however, Gauquelin (1969) found upon re-examination that it was astronomically impossible for a conjunction of the moon and Uranus in those empty parts because Uranus was never in that area during the period when these musicians were born.

Chapman (1961) statistically investigated the hypothesis that psychotic episodes are related to moon phase, examining both hospital admittance data and incidence of violence on wards for hospitalized schizophrenics and paretics. In the first case, all admissions were tabulated for a 5 lunar month period, totalling over 3000 patients. Since the four moon phases actually occur only for an instant during each lunar month, interpretations of what is meant by an event occurring "at" a certain phase is unclear. For this reason, Chapman examined both the periods of time between occurrence of one phase and the next, and the three day period including one day on either side of the day on which the phase occurred. Statistical examination revealed that none of the four lunar phase periods showed any significant departure from chance for either interpretation used.

Secondly, Chapman examined 1069 assaultive acts involving 137 hospitalized patients covering a 27 year period. These were examined in relation to the number of days each event was from the last occurring moon phase. No relationship was found between moon phase and incidents of assaults, and no tendency emerged for individual patients to be consistent as to phase in which their assaultive acts occurred.

## 2. Studies Supporting Planetary Influence on Earth

### a. Geological and Biological Phenomena

Not all research refutes astrological theory. There are in fact indications of the existence of planetary effects of some kind seen in certain geological and biological phenomena. Scientists have long recognized the effect of the moon on tides, and it is geologically acknowledged that the moon acts to distort solid ground as it moves, causing the earth surface to bulge in a wavelike manner (Scheussler, 1951).

Bradley, Woodbury, and Brier (1962) undertook a study of precipitation activity in relation to moon phase. Plots were made of excessive precipitation in terms of angle between the moon and sun, using the indices of precipitation in the continental United States over a continuous 50-year period, and 91-year daily histories of diverse individual weather stations. Their results demonstrated a marked tendency for heavy rain activity to occur most frequently in the first and third weeks of the synodical month; that is, during the seven day periods which directly follow the new and full moon. This tendency toward heavy rainfall was especially strong on the third to fifth days of these two seven day periods. Adderley and Bowen (1962) reported similar effects in the Southern

Hemisphere using data collected from 50 weather stations in New Zealand.

J. H. Nelson (1951), working for R.C.A., discovered that planetary special interrelationships coincided with ionospheric disturbances interfering with R.C.A. radio-telegraph communications. He found he could utilize astrological principles to successfully forecast magnetic storms. His forecasts and predictions also coincide almost exactly with classical astrological predictions.

H. Bortels (1951) investigated periodic deviance of physical reactions. He found that even under closely controlled conditions water at times failed to freeze at 32° F and suggested this may be due to planetary influence. Later research supported this explanation. Similarly, Georgio Piccardi (1963) found inorganic colloids react with lesser or greater rapidity according to planetary conditions. In this case, it appears to be related to solar activity and the position of earth in the galaxy.

#### b. Organic Behavior

Astrological influence is also evidenced in organic behavior. Cycles in living creatures have been demonstrated to be related to such things as the moon's course and rotation of the sun on its axis. Dunlap (Scheussler, 1951, p. 25) found that moreas bloom according to moon phase, and the South Pacific sea worm Eunice viridis spawns only during full moon (Scheussler, 1951, p. 25).

Brown (Brown, Webb, and Brett, 1960), in one of his best known experiments concerning geophysical rhythms moved Atlantic oysters from the New Haven, Connecticut, coast to pans of sea water in a photographic darkroom in Evanston, Illinois. The oysters were transported in light

proof hermetically sealed containers designed to isolate them from external influences. After two weeks, the oysters had gradually altered their opening and closing in accordance with theoretical tidal activity for Evanston. The oysters readjusted their rhythm in response to the moon's position overhead, gradually rephasing shell openings to the times of lunar zenith and nadir at Evanston. Similar studies by Brown (1959) of both potatoes and fiddler crabs demonstrated that major cyclic periods in their metabolic processes varied in accordance to lunar phase.

Konig and Ankermuller (Gauquelin, 1967) have found that bacteria, wheat spouts, and insects are responsive to very long, low-frequency waves. These waves are in turn related to solar cycles.

#### c. Human Physiology

Coming closer to the human organism, Dr. M. Takata (1951) conclusively demonstrated that flocculation index in blood serum is responsive to both sunspots and the sun's eleven year cycle.

Dr. Walter Menaker (1967), in a study of live births in relation to moon cycle, analyzed birth patterns of one half million babies comprising about one third of all live births in New York City from 1961 to 1963. These births were plotted in reference to the synodic lunar cycle. This period, commonly known as the lunar month, takes precisely 29.53 days. It consists of the time it takes the moon to pass once through all its phases. Menaker found a 1.01% increase in birth rate for the half lunar month period centering around the full moon, which runs from the day after the 1st quarter to the day before the moon's third quarter. This rate of birth was statistically significantly higher than the period centered around the new moon.

Cowgill, Bishop, Andrew, and Hutchinson (1962) reported an increased mating activity in certain primates during the full moon phase of the lunar cycle. Since the mean period of gestation for humans is  $9.00 \pm 0.01$  synodic lunar months from conception, the chances are greatly increased that children born during a specific lunar phase also were conceived at the same point in the lunar cycle. Combining this fact with his findings on birth rate, Menaker concludes that his findings suggest the possibility of increased human conception during the full moon phase of the lunar cycle.

Dr. Eugen Jonas, a gynecologist and psychiatrist (Ostrander and Schroeder, 1970), found women's period of fertility cyclicly coincided with specific angular relationships of the sun and moon at each woman's birth. Once this calculation was found, it was possible to figure the days on which a woman can conceive for the rest of her life. Conception could be avoided by abstaining from intercourse on these days. This was substantiated on almost 30,000 women by outside impartial physicians. Similarly, Jonas found he could predict sex of child with 87% accuracy. He concluded sex is determined by position of the moon at time of conception in relation to moon position at the mother's time of birth. Jonas' calculations were subsequently rechecked at the Astra Center for Planned Parenthood in Nitra, Czechoslovakia, and they have perfected calculations which yield 98% accuracy in sex selection. The answer to the question of how the position of the moon, sun, and planets at a woman's birth affect childbirth remains unanswered.

#### d. Occupational Status

Michel Gauquelin (1969) found that while it didn't follow the



classical astrological schema, an inexplicable yet consistent correlation between appearance of certain planets and work professions occurs. Surprised by this finding, he rechecked it in five different countries on over 30,000 subjects. This finding was reconfirmed repeatedly. He has demonstrated a significant correlation between dominance of the planet Mars and a career in sports, Jupiter and a career in acting, Saturn and the clergy, and Mars or Saturn in the ascendent or zenith and a career as a physician. Consistent with this, psychologist Vernon Clark (1970) of Evanston found astrologers did better than chance at matching birth charts with professions.

In a highly controlled experiment, Clark asked an experimental group of twenty astrologers to independently match ten case histories describing occupation to ten submitted horoscopes. The experimental group was composed of astrologers regarded as highly experienced experts in this field. A control group of twenty psychologists and social workers were asked to perform the same task using exactly the same information. The results indicated that the astrologers, using only basic birth data and horoscopic charts, performed statistically better than both the control group and chance expectancy in the direction of correct identification. The control group performed at chance level.

#### e. Human Behavior

Finally, several highly interesting findings have appeared concerning human behavior. T. and B. Düll (1934) found a significant correlation between the number of suicides and solar activity. Graphing approximately 25,000 cases of suicide occurring in Zurich, Copenhagen, and Frankfort over 60 months, a clearly observable relationship emerged between the 67 magnetic storms occurring during this period and incidence

of suicide. Statistical analysis of the data was not performed, however. This supported similar conclusions which were noted by Faure and Sardou concerning both suicides and criminal acts (Gauquelin, 1969, p. 199).

A group of scientists working at the U. S. Government Sandia Laboratories in Albuquerque, New Mexico (Sandia Laboratories, Time, 1972), issued a publication suggesting that human accident rates may be influenced by lunar phase and solar activity as well as other natural phenomena. The results of computer analysis of thousands of accident records collected for up to 20 years suggested the possibility of heightened susceptibility to accidents for people during the moon phase corresponding to the one in which they were born and for the phase  $180^\circ$  away from birth phase. Accidents also tended to be maximum at the point of the moon's farthest distance from earth. Other interesting patterns occurred in relation to the Sun. A noticeable correlation was found between accidents and both sunspot activity and the 27 day cycle of the earth's magnetic field disturbances associated with the sun's rotation.

A study by Dr. A. K. Podshibyakin (New Scientist, 1968) of Tamsk Medical College in Siberia revealed a relation between solar activity and road accidents. Statistical analysis of accident reports over several years' period showed road accidents increased by as much as four times above average for the day after a solar flare eruption. Researchers in Hamburg and Munich obtained similar findings. This may be linked to slower human response to stimulation during solar flaring which Podshibyakin also claims occurs.

Friedman, Becker, and Bachman (1963) examined the relation between geomagnetic parameters and alterations in human behavior by studying the relation between the Earth's magnetic activity and psychiatric

hospital admissions. Daily admissions to eight psychiatric hospitals in New York State were gathered for a four year period. This involved almost 29,000 new admissions. Transfers from other institutions were excluded. Correlations of admissions were made to a listing of principle magnetic storms. Magnetic storms are usually associated with sunspot activity (solar flaring). A statistically significant relationship was discovered between hospital admittance, which serves as a gross indication of psychological disturbance, and magnetic field intensity.

L. J. Ravitz (Scheussler, 1951) has measured electrical potentials in insane patients and normals. Psychotics were found to have consistently higher potentials. In a day by day study he found marked changes in potentials coinciding with seasons and with the sun's phases. His results also indicated that mental patients become more emotionally upset during the new or full moon and in winter and spring. Using this information along with planetary data, he was able to accurately predict mood changes in a patient for a half year in advance.

Thus, a review of the research literature to date suggests that, while classical astrologic interpretations usually fail to be substantiated, astrological factors have been shown to correlate with, and may relate to psychological disturbance as well as physical conditions. At the present time astrological information is being used by some clinicians diagnostically. Yet, almost no research has been done to substantiate the proposition that Zodiac information can be accurately used as a psychological diagnostic tool. The focus of this study is to center on the validity of this approach to see if any evidence can be uncovered to support use of astrology in this way.

### CHAPTER III

#### DEFINITION OF THE PROBLEM AND STATEMENT OF HYPOTHESIS

The present study is concerned with a systematic investigation of basic astrological configurations in relation to specific psychometrically measured personality differences. This area remains almost totally unresearched by psychology, in spite of astrology's widespread popular application to personality diagnosis. Because this area of investigation remains controversial, an attempt has been made to use only widely employed and generally accepted personality measurement instruments. Similarly, in order to do justice to serious astrological theory, an attempt has also been made to be as comprehensive as possible by examining different personality categories in relation to all the major astrological configurations standardly used by competent astrologers in the application of their trade. This latter point seems particularly important in light of astrologers' repeated complaints that the few research investigations which have been undertaken by scientists outside of the field have reflected basic ignorance of astrological theory on the part of the investigators. Consequently, the results obtained by the majority of past studies have failed to take into consideration all of the key factors which would be considered necessary by a competent astrologer.

Supporters of astrology could be expected to assert that common configurations of specific planets would occur among individuals having similar personality traits, calling on the positive research findings

discussed above to support their assumption that planets do affect human behavior. If this assumption is true, it would be expected that a direct positive correlation would be found between clinically measured personality factors and the presence of specific planetary positioning in astrological birth charts.

The majority of research to date, however, fails to support astrological assumptions, particularly those studies which deal most directly with astrology used as a diagnostic tool. The research at present is not sufficient to disprove null hypothesis expectations for such an investigation. This latter position is assumed by the present study:

Hypothesis: No difference greater than would be expected by chance will be found between planetary positioning in the astrological birth charts of individuals scoring high on clinically measured personality factors and those of individuals whose scores lie within the normal ranges.

## CHAPTER IV

### METHODOLOGY

Next comes a very old question, one that originated with the first dreams of mankind: Does the cosmos influence all men in a similar way? The astrologers, who had formulated this question naively, were unable to provide a satisfying answer. Scientists today hope to have found a better one.

(Gauquelin, 1967, p. xxi)

Genetheliacal (natal) astrological judgment about personality deals with, and mainly relies on, two levels of personality description in making and "verifying" its predictions: 1) how the individual perceives himself and 2) how others perceive the individual. Since these are the main areas of concern, a diagnostic measuring instrument was needed which reflects these two levels of perception. Parts of the Leary Interpersonal System of Personality Diagnosis (Leary, 1956, 1957) were selected because it incorporates within it means of differential measurement of these two levels of behavior description.

#### A. The Leary Interpersonal System of Personality Diagnosis

The Leary Interpersonal System of Personality Diagnosis (hereafter referred to as the Leary) was developed by Timothy Leary and his associates as a test battery designed to measure interpersonal aspects of behavior. The Leary measures this behavior on five levels:

Level I - The Level of Public Communication

Level II - The Level of Conscious Communication

Level III - The Level of Private Perception

Level IV - The Level of the Unexpressed Unconscious

Level V - The Level of Values: The Ego Ideal

This Leary battery makes use of three basic instruments to measure behavior over the five levels: The Minnesota Multiphasic Personality Inventory (MMPI), the Interpersonal Checklist (ICL), and the Thematic Apperception Test (TAT). The MMPI and the TAT are standard psychological tests whose scores can be specially scored within Leary's Interpersonal System. The ICL was specifically created by Leary's associates to measure Level II and Level V behavior.

As mentioned earlier, astrological personality description is mainly concerned with the way one presents himself to others and how one sees oneself -- Levels I and II in Leary's system. For this reason, these are the two levels of behavior considered pertinent in this investigation.

According to Leary, the primary source for measurement of Level I behavior would be ratings by those acquainted with the subject. In addition to this method, however, a great deal of effort was put into developing a way to measure this level of behavior through the use of several of the scales on the MMPI (Leary and Coffey, 1955). In the present study, the MMPI was used to measure Level I. Level II was measured with the ICL. The TAT was omitted since it is not employed in the measurement of these two levels.

Leary's system conceptualizes eight interpersonal variables in each of the five levels. These eight variables are arranged circularly, forming a two-dimensional grid. This grid in turn divides the octants along two bipolar dimensions: Dominance-Submission (DOM) and Love-Hate (LOV). Within Leary's system these eight dimensions theoretically

represent all possible modes of interpersonal interaction. An alphabetical and numerical system is used to identify the eight personality variables which make up the octants of the Interpersonal Circle both at the unilevel profile and summary point level: AP - Managerial-Autocratic = Octant 1, BC - Competitive-Narcissistic = Octant 2, DE - Agressive-Sadistic = Octant 3, FG - Rebellicious-Distrustful = Octant 4, HI - Self-effacing-Masochistic = Octant 5, JK - Docile-Dependent = Octant 6, LM - Cooperative-Overconventional = Octant 7, NO - Responsible-Hypernormal = Octant 8 (see Figure 5). Qualitative aspects of the individual's interpersonal behavior can be described by unilevel profiles. Level two (ICL) values for each of these octants (AP, BC, ... etc.) are built into the ICL scoring system.

The MMPI Scale which seemed to be the best measure of each octant was determined by studying the correlations between Level I sociometric and all the standard and special MMPI scales. The scales selected are:

For octant 1: PgB, Barron's Ego Strength Scale  
 For octant 2: The Ma scale  
 For octant 3: The F scale  
 For octant 4: The Sc scale  
 For octant 5: The Pt scale  
 For octant 6: The D scale  
 For octant 7: HyD, denial of hysteria scale  
 For octant 8: The K scale

(Leary, 1956, p. 87)

Two main scores summary — Dom and Lov — can then be derived from the eight variables by means of Leary's (1957) rationally derived formula:

Dom = AP-HI+.7 (NO+BC-FG-JK)	Where .7 is taken as the value of the value of $\sin 45^\circ$ , and
Lov = LM-DE+.7 (NO-BC-FG+JK)	AP = score in octant 1, etc.

These two "raw scores" can then be converted to standard scores DOM and LOV by use of empirically determined conversion table and plotted on the Interpersonal Circle. DOM and LOV define one summary point which will fall within one of the circle's previously described contacts.



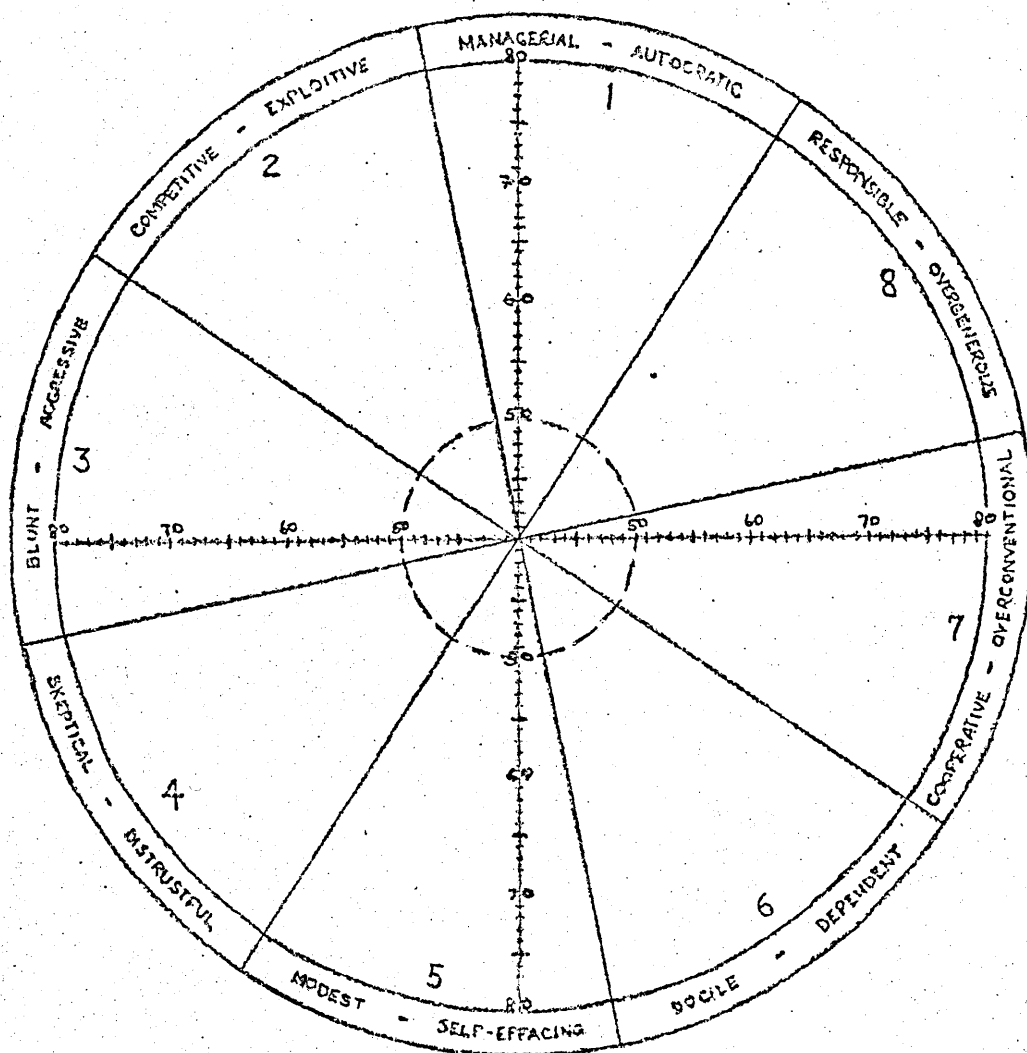


Figure 5

The Leary Interpersonal Diagnosis Personality Pattern

Leary developed his Interpersonal System to fulfill a twofold expectation. One purpose was for use in clinical diagnosis, either individual, group, or familial. Used clinically, each of the scores within the octants become significant in examining and comparing the relative amounts of each characteristic attributed to the individual by others, or by the individual to other significant individuals in his life. A detailed system of unilevel profiles discussed above is used to represent each individual's interpersonal behavior. These were developed to reflect the potential nuances and conflicting tendencies important to the formulation of a complete clinical picture. Normative data established by Leary and his associates allow for comparison of the individual's personality trends to the normative standard. As Leary states:

For clinical purposes the eight-digit diagnostic code is of minor importance. The diagnostic formulation should be made from a study of the unilevel profiles supported by inspection of the test protocols. The qualitative aspects of the individual are preserved and combined with the systematic measurements.

(Leary, 1956, p.v.)

(For a more comprehensive explanation of its use in this manner, the reader is referred to Leary, 1956.)

A second anticipated application of the interpersonal system was in research. For research purposes, the eight digit coding becomes valuable because it can be used to derive a summary point. This single point represents the main thrust of each person's interpersonal behavior. In summarizing any individual to a single bipolar point, over-simplification is inevitable.

Representation of the eight or sixteen scores comprising a patient's circle by a single point in two

dimensional space is a considerable simplification. What is preserved in this simplification is the general tendency of the circle. What is lost are the individual fluctuations around the circle.

(Leary, 1956, p. 3)

But, as Leary explains,

For research purposes the codes become extremely useful. When samples rather than individuals are being studied the over-simplifications due to measurement artifacts tend to balance out what is a slightly perceptible tendency in one case (eg. discrepancy between two moderate series) becomes a significant difference if many cases pile up in the same direction.

(Leary, 1956, p. v.)

The existence of easily determined summary codes and one overall bipolar summary point makes research determination of potentially important trends possible.

#### 1. Administration of MMPI and ICL

The complete form of the MMPI was administered to all participating subjects. The MMPI consists of 566 true-false questions which can be scored on a wide variety of empirically derived scales (for a more thorough explanation, refer to Dahlstrom, Welsh, and Dahlstrom, 1972). While the MMPI can be scored on a wide variety of scales, the standard scoring procedure consists of four validity scales (F, K, ?, and L) and nine clinical scales referring to various psychiatric diagnostic groups (HS, D, Hy, Pd, MF, Pt, Sc, and Ma).

Extensive research by Leary and Coffey (1955) with the standard scales revealed a technique for predicting summary point Level 1 behavior from eight of these MMPI scales. Four scales (Ma = manic tendencies; D = depression; Hs = hypochondriasis; and Pt = psychasthenia or obsessive tendencies) were found to correlate with Level 1 dominant-submissive

behavior (Dom). Similarly, four scales (Hy = hysteria, Sc = schizoid tendencies, K = a tendency toward defensive denial or psychopathology, and F = a tendency to answer items in a statistically deviant manner) correlated with Level I friendly hostile behavior (Lov). The T scores of these scales are then converted into Dom and Lov scores according to the following formulas:  $Dom = (Ma-D) + (Hs-Pt)$ ,  $Lov = (K-F) + (Hy-Sc)$ . Using norms provided with the Leary Battery, these Dom and Lov scores can then in turn be converted into standard Dom and Lov scores and plotted as a summary point on the vertical and horizontal axes of the interpersonal circle.

But as well as being used within the Leary System, the MMPI is often used as a diagnostic instrument in its own right. Used this way, clinical judgments are related to the individual validity and clinical scale values obtained. For this reason, the present study examines the data in terms of the eight MMPI scales Leary uses to determine octant values in the unilevel profile, as well as examining the MMPI results in relation to Leary's Level I summary point values.

Level II behavior is measured by the ICL. The ICL was specifically developed by LaForge and Suczek (1955) to measure Levels II and V. It consists of 128 items - sixteen for each of the eight octants in the Interpersonal Circle. These 128 items are listed in Appendix A. Subjects were instructed to mark items in description of themselves. Normative scores provided in the Leary Manual (1956) are used to convert raw scores to a summary point description of the self according to the formulas described in the preceding section.

## 2. Standardization of the Test Scores

Leary's original standardization was performed on a variety of populations. Level I's (MMPI) final standardization was on 787 individuals making up the total two year intake population of a psychiatric clinic. Level II (ICL) standardization was obtained from all the patients tested at an intake psychiatric clinic over a six month period. In the present study all subjects were either college students or college age (18-26) clients at the Kansas University Psychological Clinic. Thus, subjects in the present study represent a population which is considerably different from Leary's standardization groups. For this reason, college student distribution norms were established on the college students in this study who were introductory psychology students at the University of Kansas. This was done by establishing a raw mean and standard deviation distribution on the college student summary point raw score values obtained. While certain differences may exist between this college student standardization group and some of the present study's subjects, it seems likely that these differences would be less than those which exist between Leary's published standardization population and the present study's total population. Therefore, these latter distributions (See Appendix B) were selected to be used as guidelines in establishing comparison groups. For the present study, the existence of carefully established norms is not of paramount importance. The approach taken in this study does not center around having absolute levels of any personality characteristics. Its focus is not upon examination of any absolute correlations between specific planetary configurations and personality types on a universal level. The scope and goal is much more limited. It centers around attempting

to detect possible significant trends within this study population between individuals registering relatively high or low on given characteristics in comparison to a control group for whom all scores fall within moderate levels (i.e., within one standard deviation of college mean values for the Leary, and with T scores between 30 and 70 for MMPI clinical scales).

### B. Subjects

Subjects in the present study consisted of 173 undergraduate students (83 males and 90 females) and 23 college age intake clients (8 males and 15 females) at the Kansas University Psychological Clinic. All undergraduates were enrolled in introductory psychology at Kansas University in the fall of 1971. Participation was on a semi-volunteer basis since it partially fulfilled departmentally established research participation requirements. These subjects agreed to report for one two hour testing session and a short meeting at their convenience.

Participation of the clinic intake clients was on a voluntary basis. However, they were informed that the testing would be of help to them since the results would be made available to their therapists as well as serving as research data. These subjects consisted of college age intakes (18-26 years old) seeking services between October, 1971 and March, 1972. All but three clients consented to participate. Testing for this group was arranged at their convenience.

### C. Procedures

#### 1. Test Administration

Participating college students were told only that their first

session would involve written testing. No mention was made that this study involved astrology until after all testing was completed. The MMPI booklet form and the ICL were administered at the two hour session according to standard administration procedures (Hathaway and McKinley, 1951, pp. 5-11; Leary, 1956, pp. 8 & 11). Subjects were instructed to fill out the ICL for themselves as they then felt (i.e., as they were at this point in their life) and then to move on and complete the MMPI. They were informed that explanation of this study's purpose as well as what further would be expected of them would come after testing had been completed. Following test completion, explanation of this study's purpose was given and all subjects were informed that the second short meeting was solely to obtain needed birth information. This included place, date and exact time of birth to the nearest minute. Since most individuals do not know this last bit of information, they were informed that it was almost always obtainable from their birth certificate or from their parents. One reason for selection of this age range for subjects was the fact that this information was required to be on birth certificates in most states by 1945.

Two factors were used to insure maximum return and accuracy of information. First of all, credit for participation was given after the second session when birth information had been supplied. Secondly, it was explained to all subjects why accurate birth time was needed, that current rates for having such a horoscope cast professionally presently ranged anywhere from \$10 to \$25, and they were told that if they would bring in a self-addressed stamped envelope a copy of their horoscope would be sent to them. These methods seemed to be effective since over 95% of the participants returned the required information.

As with the college students, explanation of the study was withheld from clinic client participants until after testing had been completed. Their birth information was collected at the clinic by the experimenter.

## 2. Group Selection Criteria

Once test and birth information had been obtained, all test results were pooled. Establishment of the control group was determined on the basis of test score results. The control group for MMPI comparisons consisted of all individuals whose MMPI protocol fell within the normal range on all MMPI dimensions. The control group for Level I and Level II comparisons consisted of all individuals whose Leary summary scores fell within one standard deviation of the standardized college population mean. Those individuals whose protocols peaked out of the normal range on one or more factors were placed in a second, preliminary experimental subject group. This second group was then reevaluated and divided into 16 comparison groups — 8 groups to cover all summary point conditions for Levels I and II of the Leary system, and 8 groups to consider each of the MMPI clinical scales used in Level I unilevel octants.

Eight subgroups were established to cover summary point considerations for Level I and Level II behavioral perceptions according to the Leary system:

Level I	Level II
a. dominant	a. dominant
b. submissive	b. submissive
c. love	c. love
d. hate	d. hate

Dominant = DOM score more than +1 standard deviation  
from college student standardization mean.

Submissive = DOM score more than -1 standard deviation  
from college student standardization mean.



Love = IOV score more than +1 standard deviation from college student standardization mean.

Hate = IOV score more than -1 standard deviation from college student standardization mean.

Groupings on each of the eight clinical scales of the MMPI were performed in terms of the T scores. Any individual with a T score greater than 70 on a scale was placed in that experimental subject group. Individuals were placed into more than one group any time they had more than one factor or dimension outside the "normal" range.

At the same time, birth chart information was used to cast astrological charts for all experimental and control subjects. This process was cast according to standard astrological procedure. For a detailed explanation of this process, the reader is referred to Hone, 1968, Chapters 6-8.

## CHAPTER V

### RESULTS

A total of 632 Chi-square comparisons was run comparing the planetary distributions of experimental subjects to those of the normal controls. These comparisons were calculated for all ten astrological planets, as well as for the ascendant, across the twelve signs, twelve houses, and five major aspects employed in astrological prediction using both the Ptolemaic and Siderial systems when applicable. A total of 23 comparisons reached the level of significance: 21 at  $P < .05$  and two at  $P < .01$  levels. These results were less than might be expected by chance alone for 632 Chi-square calculations (32 at the  $P < .05$  level, 6 at the  $P < .01$  level). While it must be understood that the results in no case exceeded chance expectation, it may be of some interest to present comparisons which were significant (See Appendix C for presentation of all Chi-square comparisons calculated).

In many cases the total number of experimental subjects falling into a specific psychometric personality category was insufficient to allow use of Chi-square calculations for astrological signs, houses, and aspects. In these instances the Chi-square cells were collapsed following the procedure outlined by Siegel (1956, pp. 109-110).

#### A. Leary Level Calculations

Leary Levels I and II Dom, Sub, Lov, and Hate categories contained an insufficient number of subjects to allow Chi-square calculations without combining categories in some manner. The information was

collapsed in two different ways in order to minimize informational loss accompanying combination of groups.. First, the planets and ascendant were compared for all twelve Zodiac signs, combining individuals with high Dom and Sub scores and individuals with high Lov and Hate scores for both Levels I and II. These calculations, therefore, compared planet distribution of the controls whose Leary scores were within the normal range to experimental subjects whose scores were at the extreme (dominant or submissive on the bi-polar DOM dimension, love or hate on the bi-polar LOV dimension).

Secondly, the twelve astrological signs were combined into the four astrological "element" subdivisions: fire signs, earth signs, air signs, and water signs. This allowed comparisons to be run for all eight Leary psychometric categories (Dom, Sub, Lov, and Hate for both Levels I and II) as well as for the four combined Leary categories (DOM and LOV for both Levels I and II).

A final combination procedure was used for comparisons of planetary aspect distributions. In no case were there more than eight occurrences of any of the five major aspects (conjunction, opposition, sextile, square, and trine). All comparisons were run for the eight occurrence categories individually and also in groupings of two by alternately combining adjacent categories. Those comparisons found to be statistically significant are presented in Table I and Table II.

#### B. MMPI Scale Calculations

MMPI scale comparisons were run on an individual basis for five of the eight scales used to measure the eight octants in Leary's interpersonal circle (D, Pt, Sc, Ma, HyD). F, K, and PGB scale categories had to be eliminated because there were too few subjects to perform

Table I. Examination of the 23  $\chi^2$  Comparisons that Reached Significance for Leary Level I

Planet or Aspect	System	Leary Dimension	$\chi^2$	P
1. Saturn	Siderial	DOM (extremes vs means)	8.127	<.05
Numerical Distribution:				
		<u>Fire</u> <u>Earth</u> <u>Air</u> <u>Water</u>		
	(N = 57)	5 37 10 5		
	(N = 64)	1 39 22 2		
2. Venus	—	DOM (extremes vs means)	23.903	<.05
Numerical Distributions:				
	Houses	<u>I</u> <u>II</u> <u>III</u> <u>IV</u> <u>V</u> <u>VI</u> <u>VII</u> <u>VIII</u> <u>IX</u> <u>X</u> <u>XI</u> <u>XII</u>		
	(N = 57)	11 4 6 2 3 7 4 6 1 2 8 3		
	(N = 64)	2 13 2 6 2 6 5 8 7 5 3 5		
3. Jupiter	Ptolemaic	DOM	8.552	<.05
Numerical Distribution:				
		<u>Fire</u> <u>Earth</u> <u>Air</u> <u>Water</u>		
	(N = 25)	7 5 9 4		
	(N = 64)	5 28 24 7		
4. Jupiter	Siderial	Dom	7.965	<.05
Numerical Distribution:				
		<u>Fire</u> <u>Earth</u> <u>Air</u> <u>Water</u>		
	(N = 25)	5 7 6 7		
	(N = 64)	27 16 16 5		
5. Jupiter	Ptolemaic	LOV (extremes vs means)	10.753	<.05
Numerical Distribution:				
		<u>Fire</u> <u>Earth</u> <u>Air</u> <u>Water</u>		
	(N = 63)	8 24 21 10		
	(N = 64)	16 18 10 20		
6. Oppositions	—	Lov	9.995	<.05
Numerical Distribution:				
		<u>One</u> <u>Two</u> <u>Three</u> <u>Four</u> <u>Five</u> <u>Six</u> <u>Seven</u> <u>Eight</u>		
	(N = 28)	10 9 5 1 3 0 0 0		
	(N = 64)	35 19 6 3 0 0 1 0		
7. Opposition	—	Lov	8.613	<.05
Numerical Distribution:				
		<u>1-2</u> <u>3-4</u> <u>5-6</u> <u>7-8</u>		
	(N = 22)	19 6 3 0		
	(N = 86)	15 9 0 1		
8. Sun	Siderial	Hate	8.263	<.05
Numerical Distribution:				
		<u>Fire</u> <u>Earth</u> <u>Air</u> <u>Water</u>		
	(N = 35)	3 13 7 12		
	(N = 64)	16 13 21 14		

Table II. Examination of the 23  $\chi^2$  Comparisons that Reached Significance for Leary Level II

Planet or Aspect	System	Leary Dimension	$\chi^2$	P
1. Ascendant	Siderial	DOM (extremes vs means)	23.382	<.05
Numerical Distribution:				
		<u>T</u> <u>U</u> <u>II</u> <u>Q</u> <u>Q</u> <u>m</u> <u>+</u> <u>ny</u> <u>A</u> <u>y</u> <u>z</u> <u>x</u>		
(N = 61)		6 3 9 8 9 0 7 2 4 4 6 3		
(N = 64)		2 3 4 9 9 12 12 5 3 3 1 1		
2. Saturn	Siderial	DOM (extremes vs means)	8.487	<.05
Numerical Distribution:				
		<u>Fire</u> <u>Earth</u> <u>Air</u> <u>Water</u>		
(N = 61)		8 33 15 5		
(N = 64)		1 39 22 2		
3. Oppositions	—	Dom	15.580	<.05
Numerical Distribution:				
		<u>One</u> <u>Two</u> <u>Three</u> <u>Four</u> <u>Five</u> <u>Six</u> <u>Seven</u> <u>Eight</u>		
(N = 26)		2 7 12 2 1 1 0 1		
(N = 64)		6 7 13 14 16 6 1 1		
4. Saturn	Siderial	Sub	9.964	<.05
Numerical Distribution:				
		<u>Fire</u> <u>Earth</u> <u>Air</u> <u>Water</u>		
(N = 35)		5 18 8 4		
(N = 64)		1 39 22 2		
5. Venus	—	LOV (extremes vs means)	20.032	<.05
Numerical Distributions:				
	Houses	<u>I</u> <u>II</u> <u>III</u> <u>IV</u> <u>V</u> <u>VI</u> <u>VII</u> <u>VIII</u> <u>IX</u> <u>X</u> <u>XI</u> <u>XII</u>		
(N = 59)		7 3 8 3 4 6 6 4 3 4 8 3		
(N = 64)		2 13 2 6 2 6 5 8 7 5 3 5		
6. Saturn	—	LOV (extremes vs means)	20.516	<.05
Numerical Distribution:				
	Houses	<u>I</u> <u>II</u> <u>III</u> <u>IV</u> <u>V</u> <u>VI</u> <u>VII</u> <u>VIII</u> <u>IX</u> <u>X</u> <u>XI</u> <u>XII</u>		
(N = 59)		3 13 4 3 5 3 5 7 6 1 7 2		
(N = 64)		13 11 7 4 2 3 0 2 4 3 8 7		
7. Opposition	—	Hate	11.833	<.01
Numerical Distribution:				
		<u>1-2</u> <u>3-4</u> <u>5-6</u> <u>7-8</u>		
(N = 41)		27 12 2 0		
(N = 64)		54 9 0 1		

Chi-square calculations (F scale had a total of 16 individuals, K had three, and PgB had three). Sign categories were combined according to the "element" subdivisions described above, and aspect calculations were run for both the 2 x 8 and the combined 2 x 4 categories described above. Table 3 contains those comparisons which reached statistical significance.

### C. Potential Trends

While the number of Chi-square comparisons reaching the level of significance did not exceed the number expected by chance, an examination of those 23 comparisons which did reach significance reveals a number of interesting patterns. Table 4 contains a summary of the different distributions which occurred within these 23 comparisons.

First of all, examination of the results shows that the number of significant relations involving Leary Level I factors and the number involving Leary Level II factors were approximately equal: eight involved Level I factors (2 DOM, 2 Dom; 1 LOV, 2 Lov, 1 Hate) and seven involved Level II factors (2 DOM, 1 Dom, 1 Sub; 2 LOV, 1 Hate). However, while an identical number of calculations were run using the Ptolemaic and Siderial systems, over twice as many were significant using the Siderial system (Ptolemaic system = 4, Siderial system = 9). The number of calculations reaching significance using the Ptolemaic system was in fact considerably less percentage-wise than expected for the proportion of calculations in which it was used (See Table 4).

Secondly, sixteen significant comparisons were found which involved the 10 planets and the ascendant. In a random distribution an equal distribution would be expected among all eleven possibilities ( $16/11 \approx 1.5$ , or between 1 and 2 for an equal distribution). In the present study only

Table III. Examination of the 23  $\chi^2$  Calculations that Reached Significance for Individual MMPI Scales

Planet or Aspect	System	MMPI Scale	$\chi^2$	P
1. Venus	Ptolemaic	D	8.500	<.05
Numerical Distributions:		<u>Fire</u> <u>Earth</u> <u>Air</u> <u>Water</u>		
(N = 22)		3 6 5 8		
(N = 86)		30 29 16 11		
2. Ascendent	Siderial	D	9.415	<.05
Numerical Distributions:		<u>Fire</u> <u>Earth</u> <u>Air</u> <u>Water</u>		
(N = 22)		6 3 11 2		
(N = 86)		18 25 19 24		
3. Saturn	Siderial	D	19.564	<.01
Numerical Distributions:		<u>Fire</u> <u>Earth</u> <u>Air</u> <u>Water</u>		
(N = 22)		4 2 12 4		
(N = 86)		6 50 27 3		
4. Oppositions	—	D	9.013	<.05
Numerical Distributions:		<u>1-2</u> <u>3-4</u> <u>5-6</u> <u>7-8</u>		
(N = 22)		12 7 2 1		
(N = 86)		72 9 4 1		
5. Sun	Siderial	Pt	9.533	<.05
Numerical Distributions:		<u>Fire</u> <u>Earth</u> <u>Air</u> <u>Water</u>		
(N = 43)		2 18 8 15		
(N = 86)		22 23 18 23		
6. Sextiles	—	Pt	13.103	<.05
Numerical Distributions:		<u>One</u> <u>Two</u> <u>Three</u> <u>Four</u> <u>Five</u> <u>Six</u>		
(N = 43)		11 5 8 13 3 3		
(N = 86)		7 16 22 21 18 2		
7. Venus	Ptolemaic	Sc	8.661	<.05
Numerical Distributions:		<u>Fire</u> <u>Earth</u> <u>Air</u> <u>Water</u>		
(N = 54)		17 10 10 17		
(N = 86)		30 29 16 11		
8. Sextiles	—	Sc	11.335	<.05
Numerical Distributions:		<u>One</u> <u>Two</u> <u>Three</u> <u>Four</u> <u>Five</u> <u>Six</u>		
(N = 54)		14 10 11 11 5 3		
(N = 86)		7 16 22 21 18 2		

Table IV. Analysis of the 23 Significant  $\chi^2$  Comparisons  
Obtained in Relation to the Frequency Expected

Personality or Zodiac Factor Involved:	Total Number of $\chi^2$ Calculations Involving the Given Factor:	% of the Total 632 Calculations:	Number of Significant Results Expected by Chance:	Number of the Calculations Reaching Signi- ficance ( $P < .05$ or Less) for Given Factor	% of the 23 Significant Calculations Reaching Significance:
Leary Levels I & II	472	74.7%	23-24	15	65.2%
MMPI Scales	160	25.3%	8	8	34.8%
Zodiac Signs	462	73.1%	23	13	56.5%
Houses	40	6.3%	2	3	13.0%
Aspects	130	20.6%	6-7	7	30.4%
A. Opposition	A. 26		A. 0-1	A. 5	
B. Sextile	B. 26		B. 2	B. 2	
Individual Planets and the Ascendant	502	79.4%	25	16	69.6%
Ptolemaic	231	36.6%	11-12	4	17.4%
Siderial	231	36.6%	11-12	9	39.1%



four planets and the ascendant were actually found to be involved in the 16 significant comparisons which involved planets (2 Asc, 2 Sun, 4 Venus, 3 Jupiter, 5 Saturn). In three cases (Jupiter, Venus, Saturn) the actual incidence was above the number one would expect in a totally random distribution (See Tables 1, 2 and 3).

A third pattern emerged for results involving MMPI scales. In a situation like the present one where 160 calculations were run involving MMPI scales, as many as eight might be expected to reach significance by chance alone (Table 4). In the actual distribution eight comparisons were found to reach significance. If this distribution were random, one could expect to find an approximately equal number of significant calculations for each of the five scales, since an equal number of calculations were initially involved for each scale. However, only three of the five scales investigated appeared in the significant results (2 Pt, 2 Sc, 4 D). The number of calculations involving the D-scale was two and one half times what one would expect if the distribution were random.

A final interesting pattern appeared in relation to the distribution of planetary aspects. Table 5 lists the occurrence of the five different aspect relationships within the two control groups, along with the approximate proportions and distributions anticipated for a total of seven significant calculations. In both cases, oppositions occurred least frequently numerically in the general population sample, yet five of the seven significant calculations found involved oppositions (and 2 sextiles). The proportion of oppositions was again much higher than theoretical expectation.

Table V. Distributions of the 7 Significant Aspect Comparisons  
Obtained in Relation to the Frequency Expected

	<u>Conjunctions</u>	<u>Oppositions</u>	<u>Sextiles</u>	<u>Squares</u>	<u>Trines</u>
<u>Leary Levels I &amp; II</u>					
Frequency Distribution for Various Aspects Obtained by Normal Subjects	114	46	182	148	125
Frequency Distributions Expressed in Proportions	2.5	: 1	: 4	: 3.2	: 2.7
Distribution Expected by Chance for Seven Significant Findings Expressed as a Proportion	1.3	.5	2	1.6	1.4
<u>MMPI Frequency Distribution for Various Aspects Obtained by Normal Subjects</u>	138	69	183	202	135
Frequency Distributions Expressed in Proportions	2	: 1	: 2.7	: 3	: 2
Distribution Expected by Chance for Seven Significant Findings Expressed as a Proportion	1.3	.7	1.8	2	1.3
<u>Obtained Distribution of the Seven Significant Aspect Calculations</u>	0	5	2	0	0
Obtained Distribution of the Seven Significant Aspect Calculations	0	2.5	1	0	0

## CHAPTER VI

### DISCUSSION

The fault, dear Brutus, is not in our stars,  
But in ourselves, that we are underlings.  
(Shakespeare in Julius Caesar, Act I, Sc. II)

The present study was designed to subject the use of natal birth chart information in making judgments of personality to controlled examination. The results supported the hypothesis that no difference greater than what could be expected by chance would be found between planetary positioning in the astrological birth charts of individuals scoring high on clinically measured personality factors and those of individuals whose scores lay within the normal range. These results failed to support the proposition that natal birth chart information offers useful information in making diagnostic evaluations.

#### A. Discussion of Methodological Limitations

One of the major difficulties in conducting controlled astrological research stems from the large number of possible planetary combinations which can occur. The number of different astrological factors which one can select to examine is so large the question of what to examine takes on major significance. If one chooses to limit investigation to one or two factors, highly controlled research becomes easier. Such an approach, however, easily lends itself to criticism of being too narrow: that the factor chosen is not actually the important one to consider or that what is truly important is the combination of many factors (e.g., Dobyns, 1970).

If, on the other hand, an attempt is made to take a comprehensive approach, finding an adequate subject pool becomes a paramount consideration.

Astrology has developed into an incredibly complex system for interpretation. When one realizes that astrological prediction involves not only two systems of interpretation (Ptolemaic and Siderial), but also ten planets and the ascendant, twelve signs of the Zodiac, twelve houses, and five major aspect combinations, the problem of finding sufficient numbers of subjects to permit statistical analysis becomes a major one. Introducing sixteen psychometric personality dimensions (eight factors for Leary Levels I and II, and eight MMPI scales), as was done in the present study, complicates investigation even more. In order to have enough subjects, a tremendous subject pool would be needed.

This is further complicated by the fact that all subjects studied should ideally be born within a limited time space. If the years of birth are widely varied among subjects, certain natural astronomical discrepancies occur in the positioning of those planets which are located farther from the sun than Earth is. Because these planets rotate around the sun much more slowly than the Earth does, statistical significance can be obtained erroneously if the comparison groups' years of birth happen to be widely divergent. In this case, significance would be due solely to year of birth, regardless of the individual's personality characteristics.

Finding adequate numbers of subjects to allow statistical comparison and also control against too wide age differences proved to be one of the major limitations in the present study. Control for the possibility of obtaining erroneous significance due to wide population age difference was maintained by limiting the subject pool to college students between

the ages of 18 and 26. This left a maximum possible spread of eight years between subjects. Finding enough subjects to adequately examine all astrological and diagnostic factors was more difficult. With a total subject pool of slightly less than 200 subjects, it became necessary to combine some categories in order to have sufficient numbers to run Chi-square comparisons. Collapsing categories invariably increases the possibility of missing significant relationships due to the information loss which occurs. An attempt was made to minimize this loss by combining categories in more than one way whenever possible, but some information loss is inescapable.

A second limitation of the comprehensive approach of examining a large diversity of factors is that it diminishes the probability of finding significant results. This needs to be acknowledged in considering the present investigation. In order to examine personality diagnosis in relation to the broad range of astrological factors that have been claimed to be of importance, the resulting depth of examination for any one factor was by necessity limited.

#### B. Consideration of the Influence of Planets on Life Activity

Two qualitatively different types of studies can be distinguished in examining past research in astrology and human activity. The first type relates to astrology used as a general blueprint or predictor of eventual behavior. The second type examines the potential influence of solar activity or cyclic planetary patterning as a possible triggering mechanism for internal "biological clocks" that are recognized by biologists as playing a significant part in the regulation of life activities.

The use of astrology as a psychological diagnostic instrument falls in the first category of investigation. Several past investigations

have examined the use of natal planet configuration as a predictor of later behavior. These studies have examined such diverse human behaviors as musical ability (Farnsworth, 1939), careers entered (Bok, in Gauquelin, 1969), criminal behavior (Gauquelin, 1967), and personal renown (Gauquelin, 1969). In each case astrological configurations failed to conform to the planetary pattern that one would expect based on astrological theory.

While these studies can be seen to be obliquely related to the issue of personality assessment by astrology, the literature revealed no studies which directly examined the use of astrological planetary configurations as a diagnostic tool in a systematic, complete manner. This task was undertaken in the present study. The negative results obtained in this investigation are consistent with the previous findings, which revealed insufficient evidence to support the use of astrology for prediction of behavior.

More support exists for examining human behavior in relation to specific solar activity or certain planetary configurations in triggering cyclic processes. Such an approach does not concern itself with relating to classic astrological theory or to total prediction. The evidence for the existence of significant relationships of this type is more impressive. Several studies have reported planetary relationships to such diverse cyclic processes as live birth rate (Menacker, 1967), primate mating activity (Cowgill et al., 1970), auto accidents (Sandia Laboratories, 1972), and psychotic activity (Ravitz in Scheussler, 1951). Several other investigators have revealed similar relationships between heightened solar activity and such human behaviors as road accidents (Podshibyakin, 1968), suicide (Dull and Dull, 1934; Faure and Sardou in Gauquelin, 1969), and psychiatric hospital admissions (Friedman, Becker and Bachman, 1963).

This approach would appear to the author to be a more fruitful one in pursuing further research in astrology and human behavior.

### C. Implications of the Revealed Trends

Even though the number of comparisons that reached significance did not exceed chance expectation, consideration of the patterning within those 23 comparisons reveals several trends that are of interest astrologically. In several instances, the frequencies or ratios of occurrence of different astrological and psychometric factors deal with areas of considerable importance to astrologers.

One question which continues to be a major issue for astrologers, both in their castings and in their research as well, is the question of whether to employ the Ptolemaic or Siderial system of interpretation. Supporters of each approach continue to attribute failures to find significance by others to the fact that the basic system used was wrong in the first place.

The Siderialists contend that only the moving, Siderial Zodiac is the true one, and they have tried to buttress their argument with elaborate statistical studies.

Their opponents (the majority of conventional astrologers) contend that the statistics can be interpreted in a number of ways, and insist that their own collective experience testifies to the validity of the standard Tropical Zodiac.

(West and Toonder, 1970, p. 135)

The present study allows the effectiveness of the two systems to be compared since both systems were considered in analyzing the data. While the results of the present investigation did reveal that over twice as many comparisons reached significance using the Siderial as compared to the Ptolemaic system, in both cases the actual number of calculations reaching significance was below statistical expectation (see Table 4).

Neither system succeeded in exceeding chance.

An interesting finding from a psychometric point of view concerns the incidence of the MMPI D scale (depression) within the 23 calculations reaching the significance level. From the present study it is not possible to find sufficient justification for relating it to any one specific planet, aspect or celestial position. But the fact that its occurrence was more than three times what one would expect for a random distribution should encourage further investigation.

Probably the most interesting finding concerns the incidence of aspect relationships that appeared. The occurrence of "oppositions" among the seven Chi-square comparisons that reached the statistical significance level was well above what might be expected for a random distribution. This takes on added importance when one realizes that this finding is consistent with both theoretical astrological expectations and at least one other scientific finding. According to astrological theory, oppositional aspects are considered "disharmonious" and therefore would be predicted to occur in higher incidence among individuals falling in the extreme category on psychometric measure as opposed to those who lay within the normal range. Nelson (1951), in his work with planet positions in relation to radio-telegraph interference, found maximum disturbance (disharmony) when certain planets lay in opposition to the sun. It could be argued that, in a similar manner, the present finding is what one would expect in relation to human personality diagnosis.

#### D. Concluding Remarks and Suggestions for Further Research

The results of the present investigation do not support the use of astrological information as a psychometric diagnostic instrument. In



essence, the findings of the present study bear out previous negative findings concerning the use of astrological birth information to predict future human behavior. It might be well for psychologists and psychiatrists using such an approach to aid in their therapy to thoroughly consider research to date before committing themselves to its use. In the present investigator's opinion, the evidence is insufficient at this point to support using natal astrology diagnostically.

One can consider the present study a preliminary investigation for an area which remains largely unresearched in the field of psychology. For those who wish to continue further investigation of natal astrology and psychological diagnosis, the patterns discussed above may suggest some areas toward which further study might be directed. Considering the results of the present study in relation to the literature, however, the present investigator is convinced that a more productive future research approach for exploring the area of planetary influence on human activity would be directed toward an examination of specific human behaviors in relation to planetary cycles, interrelationships and atypical activities.

## CHAPTER VII

### SUMMARY

Astrology is currently being used by some clinicians to aid in their diagnoses of clients. This investigation was conducted to test the assumption that personality diagnosis is related to planetary positions in the astrological birth chart. A survey of research to date revealed that no studies of this nature had been published in the area of psychology. Research findings from other fields which could be considered related to the use of astrology for personality diagnosis were reviewed and failed to support the use of natal astrology to predict personality types.

The research design of the present investigation included 173 undergraduate students and 23 college age intake clients at the Kansas University Psychological Clinic. All subjects were administered the Leary Interpersonal Check List (ICL) and the Minnesota Multiphasic Personality Inventory (MMPI) to differentiate a total of 16 personality characteristics (Leary Levels I and II dominance, submission, love, and hate; MMPI PgB, Ma, F, Sc, Pt, D, HyD, and K scales).

It was predicted that comparison of planetary positioning in the natal charts of individuals who scored on one or more of these clinical measurements would not differ significantly from control individuals whose scores lay within the normal range on the ICL and the MMPI. The results of this study (which were in general agreement with previous research) confirmed this prediction.

Finally, some of the limitations of astrological research in

general and of this study in specific were discussed. The results of the current investigation which reached significance were discussed in relation to certain patterns which emerged, and suggestions were made for further research in the area.

## APPENDIX A

### INTERPERSONAL CHECK LIST (ICL) ITEMS

1. well thought of
2. makes a good impression
3. able to give orders
4. forceful
5. self-respecting
6. independent
7. able to take care of self
8. can be indifferent to others
9. can be strict if necessary
10. firm but just
11. can be frank and honest
12. critical of others
13. can complain if necessary
14. often gloomy
15. able to doubt others
16. frequently disappointed
17. able to criticize self
18. apologetic
19. can be obedient
20. usually gives in
21. grateful
22. admires and imitates others
23. appreciative
24. very anxious to be approved of
25. cooperative
26. eager to get along with others
27. friendly
28. affectionate and understanding
29. considerate
30. encourages others
31. helpful
32. big-hearted and unselfish
33. often admired
34. respected by others
35. good leader
36. likes responsibility
37. self-confident
38. self-reliant
39. businesslike
40. likes to compete with others
41. hard-boiled when necessary
42. stern but fair
43. irritable
44. straightforward and direct
45. resents being bossed

46. skeptical
47. hard to impress
48. touchy and easily hurt
49. easily embarrassed
50. lacks self-confidence
51. easily led
52. modest
53. often helped by others
54. very respectful to authority
55. accepts advice readily
56. trusting and eager to please
57. always pleasant and agreeable
58. wants everyone to like him
59. sociable and neighborly
60. warm
61. kind and reassuring
62. tender and soft-hearted
63. enjoys taking care of others
64. gives freely of self
65. always giving advice
66. acts important
67. bossy
68. dominating
69. boastful
70. proud and self-satisfied
71. thinks only of himself
72. shrewd and calculating
73. impatient with other's mistakes
74. self-seeking
75. outspoken
76. often unfriendly
77. bitter
78. complaining
79. jealous
80. slow to forgive a wrong
81. self-punishing
82. shy
83. passive and unaggressive
84. meek
85. dependent
86. wants to be led
87. lets others make decisions
88. easily fooled
89. too easily influenced by friends
90. will confide in anyone
91. fond of everyone
92. likes everybody
93. forgives anything
94. oversympathetic
95. generous to a fault
96. overprotective of others
97. tries to be too successful

98. expects everyone to admire him
99. manages others
100. dictatorial
101. somewhat snobbish
102. egotistical and conceited
103. selfish
104. cold and unfeeling
105. sarcastic
106. cruel and unkind
107. frequently angry
108. hard-hearted
109. resentful
110. rebels against everything
111. stubborn
112. distrusts everybody
113. timid
114. always ashamed of self
115. obeys too willingly
116. spineless
117. hardly ever talks back
118. clinging vine
119. likes to be taken care of
120. will believe anyone
121. wants everyone's love
122. agrees with everyone
123. friendly all the time
124. loves everyone
125. too lenient with others
126. tries to comfort everyone
127. too willing to give to others
128. spoils people with kindness

APPENDIX B

LEARY LEVELS I & II RESTANDARDIZATION  
FOR 173 PSYCHOLOGY 1 STUDENTS

LEVEL I (MMPI)

N = 173

Raw Score Means:

A. DOM = 3.69  
B. LOV = -6.28

Raw Score Standard Deviations:

A. DOM = +18.05  
B. LOV = +22.67

Converted Score Means:

A. DOM = 61  
B. LOV = 50

Converted Score Standard Deviations:

A. DOM = -7, +8  
B. LOV = +8

LEVEL II (ICL)

N = 173

Raw Score Means:

A. DOM = 0.63  
B. LOV = 1.91

Raw Score Standard Deviations:

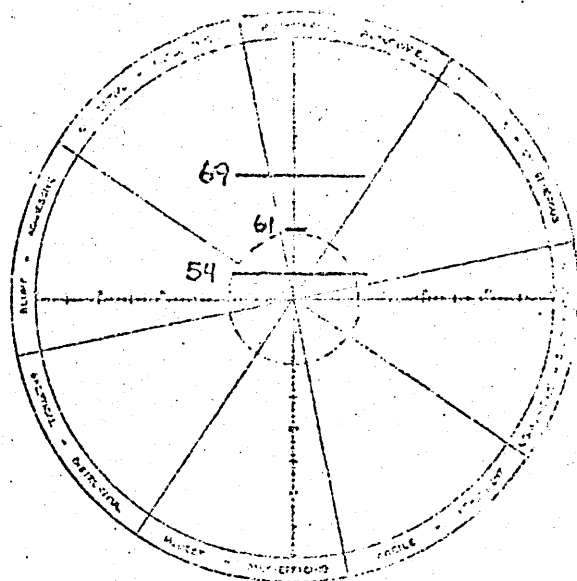
A. DOM = +6.03  
B. LOV = +7.46

Converted Score Means:

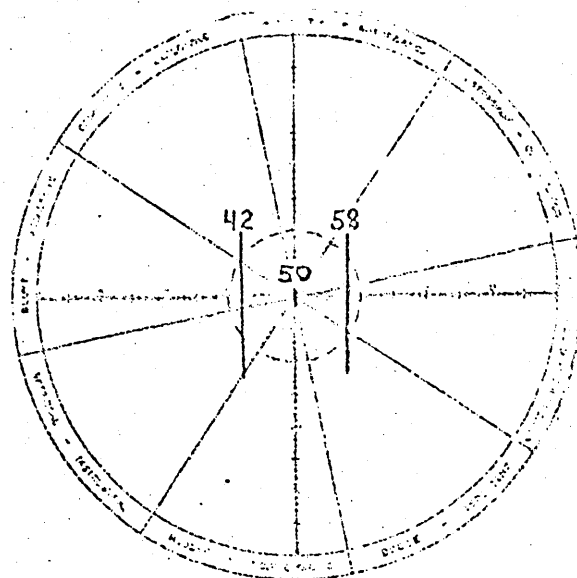
A. DOM = 54  
B. LOV = 50

Converted Score Standard Deviations:

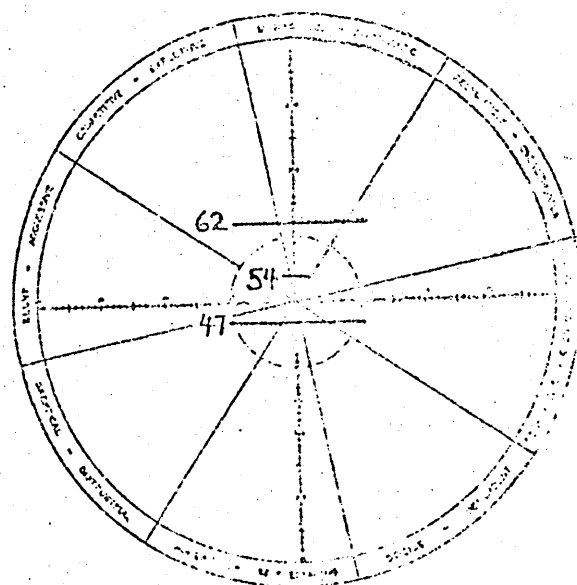
A. DOM = -7, +8  
B. LOV = -8, +9



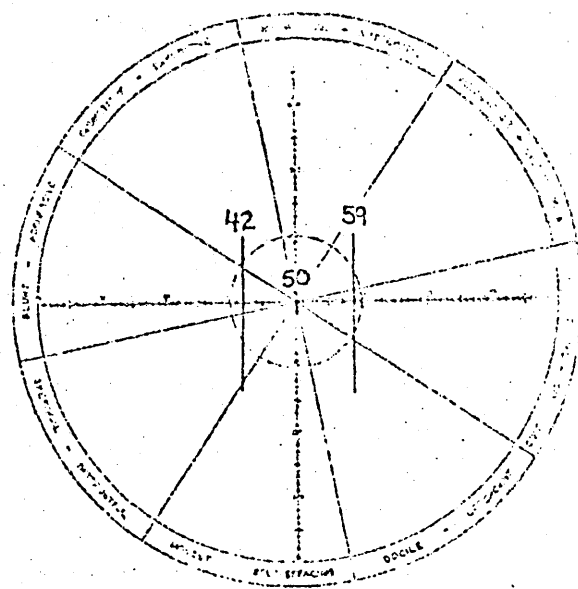
LEVEL I DOM



LEVEL I LOV



LEVEL II DOM



LEVEL II LOV



## APPENDIX C

Appendix C contains a complete listing of all 632 planetary distribution tables and Chi-square calculation results obtained for comparisons between experimental subjects (Es) and controls (Cs). In each case, the psychometric diagnostic category under consideration, as well as the specific astrological factor(s) involved are indicated. The total number of individuals falling into each category and the degrees of freedom involved are also noted. Those comparisons reaching the  $P < .05$  level of significance are designated by a single asterisk (\*). Comparisons reaching the  $P < .01$  level of significance are designated by a double asterisk (\*\*).

## 64

$$CH_2$$
$$CH_2$$

12.51

1.42

ASCENDANT

4.44

SUN

0.25

MOON

10.724.93

MERCURY

6.87.

3.05

VENUS

13.283.29

MARS.

10.27

2.35

JUPITER

11.44\$ 4.80

## SATURN

4.76

53.45

URANUS

1.26 $0.65$ 

NEPTUNE

0.0

50.0

PLUTO

0.99

0.99

 $df = 11$  $df=3$

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level I Dom  
Ptolemaic System Es = 25 Cs = 64

65

					CHI <sup>2</sup>
	7	4	9	5	Es
ASCENDANT	15	14	19	16	Cs
	FIRE EARTH AIR WATER				0.88
	6	7	3	9	Es
SUN	12	14	19	19	Cs
	F E A W				3.03
	4	8	7	6	Es
MOON	21	11	17	15	Cs
					3.67
	8	5	4	8	Es
MERCURY	17	8	12	27	Cs
					1.43
	8	5	6	6	Es
VENUS	20	18	10	16	Cs
	F E A W				1.17
	4	5	9	7	Es
MARS	16	18	10	20	Cs
					4.67
	7	5	9	4	Es
JUPITER	5	28	24	7	Cs
					8.56*
	2	3	19	1	Es
SATURN	2	4	55	3	Cs
					1.94
	0	0	2	23	Es
URANUS	0	0	5	29	Cs
	F E A W				0.00
	0	0	25	0	Es
NEPTUNE	0	0	64	0	Cs
	FIRE EARTH AIR WATER				0.00
	19	6	0	0	Es
PLUTO	48	16	0	0	Cs
					0.01

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level I Sub  
Ptolemaic System Es = 32 Cs = 64

66

CHI<sup>2</sup>

ASCENDANT

5	10	4	13	Es
15	14	19	16	Cs
FIRE EARTH AIR WATER				

5.73

SUN

4	4	16	8	Es
12	14	19	19	Cs
F E A W				

4.09

MOON

6	9	8	9	Es
21	11	17	15	Cs

2.93

MERCURY

11	6	7	8	Es
17	8	12	27	Cs

2.85

VENUS

5	8	10	9	Es
20	18	10	16	Cs
F E A W				

4.66

MARS

8	11	6	7	Es
16	18	10	20	Cs

1.07

JUPITER

5	14	10	3	Es
5	28	24	7	Cs

1.54

SATURN

3	4	23	2	Es
2	4	55	3	Cs

3.22

URANUS

0	0	5	27	Es
0	0	5	59	Cs
F E A W				

1.40

NEPTUNE

0	0	32	0	Es
0	0	64	0	Cs
FIRE EARTH AIR WATER				

0.00

PLUTO

28	4	0	0	Es
48	16	0	0	Cs

2.02

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level I LOV  
Ptolemaic System Es = 63 Cs = 64

67

CHI<sup>2</sup> 19.28

4	5	3	8	1	7	8	4	7	8	4	4
1	2	3	6	9	10	13	9	5	2	3	1
♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈

SUN 7.84

5	7	7	4	6	3	7	5	4	3	8	4
5	2	6	6	4	7	6	10	3	5	7	3

MOON 5.15

6	4	4	3	8	3	6	8	6	5	5	5
8	3	6	7	5	3	5	6	8	5	6	2

MERCURY 7.24

6	6	4	8	5	2	3	5	9	3	7	5
4	1	3	9	6	4	5	11	7	3	4	7

VENUS 7.66

17	7	4	5	3	5	2	7	1	4	4	4
9	8	5	3	7	6	2	6	4	4	3	7
♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈

MARS 5.61

4	5	9	7	4	7	4	6	5	4	4	4
5	4	6	6	6	9	3	5	5	5	1	9

JUPITER 7.12

5	21	16	1	0	1	2	3	3	2	3	6
4	26	22	0	0	1	0	1	1	1	2	6

SATURN 8.40

0	0	1	2	6	9	44	1	0	0	0	0
0	0	0	1	2	4	55	2	0	0	0	0

URANUS 3.71

0	0	11	52	0	0	0	0	0	0	0	0
0	0	4	59	0	0	1	0	0	0	0	0

NEPTUNE 0.00

0	0	0	0	0	0	63	0	0	0	0	0
0	0	0	0	0	0	64	0	0	0	0	0
♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈

PLUTO 1.08

0	0	0	0	52	11	0	0	0	0	0	0
0	0	0	0	48	16	0	0	0	0	0	0

CHI<sup>2</sup> 1.85

12	20	15	16
15	14	19	16
FIRE	EARTH	AIR	WATER

1.71

15	13	22	13
12	14	19	19
F	E	A	W

0.22

20	12	15	16
21	11	17	15

2.66

20	11	14	18
17	8	12	27

0.13

21	16	10	16
20	18	10	16
F	E	A	W

2.48

13	16	17	17
16	18	10	20

10.75

8	24	21	10
16	18	10	20

4.92

6	9	45	3
2	4	55	3

2.68

0	0	11	52
0	0	5	59
F	E	A	W

0.00

0	0	63	0
0	0	64	0
FIRE	EARTH	AIR	WATER

1.08

52	11	0	0
48	16	0	0

df=11

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level I Love  
Ptolemaic System Es = 28 Cs = 64

68

ASCENDANT	5	10	9	4	Es
	15	14	19	16	Cs
	FIRE EARTH AIR WATER				
SUN	5	6	10	7	Es
	12	14	19	19	Cs
	F E A W				
MOON	12	6	4	6	Es
	21	11	17	15	Cs
MERCURY	7	6	9	6	Es
	17	8	12	27	Cs
VENUS	9	10	4	5	Es
	20	18	10	16	Cs
	F E A W				
MARS	5	6	8	9	Es
	16	18	10	20	Cs
JUPITER	2	10	11	5	Es
	5	28	24	7	Cs
SATURN	1	7	18	2	Es
	2	4	55	3	Cs
URANUS	0	0	3	25	Es
	0	0	5	59	Cs
	F E A W				
NEPTUNE	0	0	28	0	Es
	0	0	64	0	Cs
	FIRE EARTH AIR WATER				
PLUTO	24	4	0	0	Es
	48	16	0	0	Cs

CHI<sup>2</sup>

2.78

0.39

2.06

4.91

0.83

2.44

1.05

7.11

0.21

0.00

1.31

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level I Hate  
Ptolemaic Es = 35 Cs = 64

69

ASCENDANT	7	10	6	12	Es	2.64
	15	14	19	16	Cs	
	FIRE	EARTH	AIR	WATER		
SUN	10	7	12	6	Es	2.58
	12	14	19	19	Cs	
	F	E	A	W		
MOON	8	6	11	10	Es	1.19
	21	11	17	15	Cs	
MERCURY	13	5	5	12	Es	2.95
	17	18	12	27	Cs	
VENUS	12	6	6	11	Es	1.57
	20	18	10	16	Cs	
	F	E	A	W		
MARS	8	10	9	8	Es	1.81
	16	18	10	20	Cs	
JUPITER	6	14	10	5	Es	2.58
	5	28	24	7	Cs	
SATURN	5	2	27	1	Es	4.40
	2	4	55	3	Cs	
URANUS	0	0	8	27	Es	4.49
	0	0	5	59	Cs	
	F	E	A	W		
NEPTUNE	0	0	35	0	Es	0.00
	0	0	64	0	Cs	
	FIRE	EARTH	AIR	WATER		
PLUTO	28	7	0	0	Es	0.32
	48	16	0	0	Cs	

Chi<sup>2</sup>

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level II DOM

70

Ptolemaic System ES = 61 CS = 64

CH<sup>12</sup>

2	6	4	10	7	5	5	6	1	4	5	6
1	2	3	6	9	10	13	9	5	2	3	1
♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈

ASCENDANT 16.89

CH<sup>12</sup>

10	15	14	22
15	14	19	16
FIRE	EARTH	AIR	WATER

Es 2.67  
Cs

6	7	7	6	6	1	7	4	3	4	8	2
5	2	6	6	4	7	6	10	3	5	7	3

SUN 10.81

15	12	22	12
12	14	19	19
F	E	A	W

Es 2.22  
Cs

2	7	6	3	6	5	5	11	4	2	5	5
8	3	6	7	5	3	5	6	8	5	6	2

MOON 12.79

12	14	16	19
21	11	17	15

Es 3.25  
Cs

10	3	4	9	6	1	2	5	9	5	4	3
4	1	3	9	6	4	5	11	7	3	4	7

MERCURY 11.33

25	9	10	7
17	8	12	27

Es 3.97  
Cs

13	5	6	8	3	5	6	1	2	4	6	2
9	8	5	3	7	6	2	6	4	4	3	7
♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈

VENUS 15.43

18	14	18	11
20	18	10	16
F	E	A	W

Es 3.74  
Cs

2	10	6	5	4	10	7	8	1	4	3	1
5	4	6	6	6	9	3	5	5	5	1	9

MARS 16.81

7	24	16	14
16	18	10	20

Es 6.75  
Cs

8	19	14	1	0	1	1	3	2	0	7	5
4	26	22	0	0	1	0	1	1	1	2	6

JUPITER 11.34

10	20	22	9
5	28	24	7

Es 3.27  
Cs

0	0	1	2	5	11	4	1	0	0	0	0
0	0	0	1	2	4	55	2	0	0	0	0

SATURN 9.68

5	11	42	3
2	4	55	3

Es 6.23  
Cs

0	0	9	52	0	0	0	0	0	0	0	0
0	0	4	59	0	0	0	0	0	0	0	0

URANUS 2.33

0	0	9	52
0	0	5	59
F	E	A	W

Es 1.51  
Cs

0	0	0	0	0	0	61	0	0	0	0	0
0	0	0	0	0	0	64	0	0	0	0	0
♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈

NEPTUNE 0.00

0	0	61	0
0	0	64	0
F	E	A	W

Es 0.00  
Cs

0	0	0	0	48	13	0	0	0	0	0	0
0	0	0	0	48	16	0	0	0	0	0	0

PLUTO 0.24

48	13	0	0
48	16	0	0

Es 0.24  
Cs

df=11

df=3



Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level II Dom  
Ptolemaic System Es = 20 Cs = 64

71

$\chi^2$

ASCENDANT

3	3	10	10	Es
15	15	19	16	Cs
FIRE EARTH AIR WATER				

4.24

SUN

10	5	5	6	Es
12	14	19	19	Cs
F E A W				

4.05

MOON

6	10	5	5	Es
21	11	17	15	Cs

4.72

MERCURY

12	2	5	7	Es
17	8	12	27	Cs

3.72

VENUS

9	5	10	2	Es
20	18	10	16	Cs
F E A W				

7.75

MARS

2	10	8	6	Es
16	18	10	20	Cs

5.95

JUPITER

5	5	12	4	Es
5	28	24	7	Cs

5.85

SATURN

1	5	18	2	Es
2	4	55	3	Cs

4.08

URANUS

0	0	3	23	Es
0	0	5	59	Cs
F E A W				

0.32

NEPTUNE

0	0	26	0	Es
0	0	64	0	Cs
FIRE EARTH AIR WATER				

0.00

PLUTO

19	7	0	0	Es
48	16	0	0	Cs

0.04

$df=3$

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level II Sub  
Ptolemaic System Es = 35 Cs = 64

72

$\chi^2$

ASCENDANT

7	12	4	12	Es
15	14	19	16	Cs
FIRE EARTH AIR WATER				

5.38

SUN

5	7	17	6	Es
12	14	19	19	Cs
F E A W				

3.93

MOON

6	4	11	14	Es
21	11	17	15	Cs

4.84

MERCURY

13	7	5	10	Es
17	8	12	27	Cs

3.06

VENUS

9	9	8	9	Es
20	18	10	16	Cs
F E A W				

0.94

MARS

5	14	8	8	Es
16	18	10	20	Cs

3.43

JUPITER

5	15	10	5	Es
5	28	24	7	Cs

1.68

SATURN

4	6	24	1	Es
2	4	55	3	Cs

6.27

URANUS

0	0	6	29	Es
0	0	5	59	Cs
F E A W				

1.99

NEPTUNE

0	0	35	0	Es
0	0	64	0	Cs
FIRE EARTH AIR WATER				

0.00

PLUTO

29	6	0	0	Es
48	16	0	0	Cs

0.15

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level II IOV

73

Ptolemaic System Es = 59 Cs = 64

ASCENDANT	<table><tr><td>3</td><td>3</td><td>7</td><td>6</td><td>5</td><td>7</td><td>4</td><td>3</td><td>6</td><td>5</td><td>8</td><td>2</td></tr><tr><td>1</td><td>2</td><td>3</td><td>6</td><td>9</td><td>10</td><td>13</td><td>9</td><td>5</td><td>2</td><td>3</td><td>1</td></tr><tr><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td></tr></table>	3	3	7	6	5	7	4	3	6	5	8	2	1	2	3	6	9	10	13	9	5	2	3	1	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	CHI <sup>2</sup>	<table><tr><td>14</td><td>15</td><td>19</td><td>11</td></tr><tr><td>15</td><td>14</td><td>19</td><td>16</td></tr><tr><td>FIRE</td><td>EARTH</td><td>AIR</td><td>WATER</td></tr></table>	14	15	19	11	15	14	19	16	FIRE	EARTH	AIR	WATER	Es	0.79
3	3	7	6	5	7	4	3	6	5	8	2																																										
1	2	3	6	9	10	13	9	5	2	3	1																																										
♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈																																										
14	15	19	11																																																		
15	14	19	16																																																		
FIRE	EARTH	AIR	WATER																																																		
SUN	<table><tr><td>5</td><td>10</td><td>6</td><td>2</td><td>6</td><td>1</td><td>5</td><td>2</td><td>4</td><td>5</td><td>6</td><td>7</td></tr><tr><td>5</td><td>2</td><td>6</td><td>6</td><td>4</td><td>7</td><td>6</td><td>10</td><td>3</td><td>5</td><td>7</td><td>3</td></tr></table>	5	10	6	2	6	1	5	2	4	5	6	7	5	2	6	6	4	7	6	10	3	5	7	3	16.04	<table><tr><td>15</td><td>16</td><td>17</td><td>11</td></tr><tr><td>12</td><td>14</td><td>19</td><td>19</td></tr><tr><td>F</td><td>E</td><td>A</td><td>W</td></tr></table>	15	16	17	11	12	14	19	19	F	E	A	W	Es	2.51												
5	10	6	2	6	1	5	2	4	5	6	7																																										
5	2	6	6	4	7	6	10	3	5	7	3																																										
15	16	17	11																																																		
12	14	19	19																																																		
F	E	A	W																																																		
MOON	<table><tr><td>7</td><td>4</td><td>4</td><td>7</td><td>1</td><td>6</td><td>7</td><td>5</td><td>4</td><td>4</td><td>4</td><td>6</td></tr><tr><td>8</td><td>3</td><td>6</td><td>7</td><td>5</td><td>3</td><td>5</td><td>6</td><td>8</td><td>5</td><td>6</td><td>2</td></tr></table>	7	4	4	7	1	6	7	5	4	4	4	6	8	3	6	7	5	3	5	6	8	5	6	2	19.31	<table><tr><td>12</td><td>14</td><td>15</td><td>18</td></tr><tr><td>21</td><td>11</td><td>17</td><td>15</td></tr></table>	12	14	15	18	21	11	17	15	Es	3.01																
7	4	4	7	1	6	7	5	4	4	4	6																																										
8	3	6	7	5	3	5	6	8	5	6	2																																										
12	14	15	18																																																		
21	11	17	15																																																		
MERCURY	<table><tr><td>9</td><td>7</td><td>2</td><td>5</td><td>5</td><td>1</td><td>1</td><td>4</td><td>6</td><td>6</td><td>4</td><td>9</td></tr><tr><td>4</td><td>1</td><td>3</td><td>9</td><td>6</td><td>4</td><td>5</td><td>11</td><td>7</td><td>3</td><td>4</td><td>7</td></tr></table>	9	7	2	5	5	1	1	4	6	6	4	9	4	1	3	9	6	4	5	11	7	3	4	7	8.36	<table><tr><td>20</td><td>14</td><td>7</td><td>18</td></tr><tr><td>17</td><td>8</td><td>12</td><td>27</td></tr></table>	20	14	7	18	17	8	12	27	Es	4.80																
9	7	2	5	5	1	1	4	6	6	4	9																																										
4	1	3	9	6	4	5	11	7	3	4	7																																										
20	14	7	18																																																		
17	8	12	27																																																		
VENUS	<table><tr><td>17</td><td>9</td><td>5</td><td>6</td><td>2</td><td>2</td><td>3</td><td>4</td><td>2</td><td>2</td><td>3</td><td>4</td></tr><tr><td>9</td><td>8</td><td>5</td><td>3</td><td>7</td><td>6</td><td>2</td><td>6</td><td>4</td><td>4</td><td>3</td><td>7</td></tr><tr><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td></tr></table>	17	9	5	6	2	2	3	4	2	2	3	4	9	8	5	3	7	6	2	6	4	4	3	7	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	16.74	<table><tr><td>21</td><td>13</td><td>11</td><td>14</td></tr><tr><td>20</td><td>18</td><td>10</td><td>16</td></tr><tr><td>F</td><td>E</td><td>A</td><td>W</td></tr></table>	21	13	11	14	20	18	10	16	F	E	A	W	Es	1.31
17	9	5	6	2	2	3	4	2	2	3	4																																										
9	8	5	3	7	6	2	6	4	4	3	7																																										
♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈																																										
21	13	11	14																																																		
20	18	10	16																																																		
F	E	A	W																																																		
MARS	<table><tr><td>7</td><td>9</td><td>5</td><td>2</td><td>6</td><td>6</td><td>4</td><td>6</td><td>3</td><td>3</td><td>3</td><td>5</td></tr><tr><td>5</td><td>4</td><td>6</td><td>6</td><td>6</td><td>9</td><td>3</td><td>5</td><td>5</td><td>5</td><td>1</td><td>9</td></tr></table>	7	9	5	2	6	6	4	6	3	3	3	5	5	4	6	6	6	9	3	5	5	5	1	9	10.86	<table><tr><td>16</td><td>18</td><td>12</td><td>13</td></tr><tr><td>16</td><td>18</td><td>10</td><td>20</td></tr></table>	16	18	12	13	16	18	10	20	Es	1.47																
7	9	5	2	6	6	4	6	3	3	3	5																																										
5	4	6	6	6	9	3	5	5	5	1	9																																										
16	18	12	13																																																		
16	18	10	20																																																		
JUPITER	<table><tr><td>5</td><td>28</td><td>12</td><td>0</td><td>0</td><td>1</td><td>0</td><td>1</td><td>2</td><td>0</td><td>3</td><td>7</td></tr><tr><td>4</td><td>26</td><td>22</td><td>0</td><td>0</td><td>1</td><td>0</td><td>1</td><td>1</td><td>1</td><td>2</td><td>6</td></tr></table>	5	28	12	0	0	1	0	1	2	0	3	7	4	26	22	0	0	1	0	1	1	1	2	6	8.13	<table><tr><td>7</td><td>29</td><td>15</td><td>8</td></tr><tr><td>5</td><td>28</td><td>24</td><td>7</td></tr></table>	7	29	15	8	5	28	24	7	Es	2.30																
5	28	12	0	0	1	0	1	2	0	3	7																																										
4	26	22	0	0	1	0	1	1	1	2	6																																										
7	29	15	8																																																		
5	28	24	7																																																		
SATURN	<table><tr><td>0</td><td>0</td><td>0</td><td>1</td><td>3</td><td>6</td><td>49</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>0</td><td>0</td><td>0</td><td>1</td><td>2</td><td>4</td><td>55</td><td>2</td><td>0</td><td>0</td><td>0</td><td>0</td></tr></table>	0	0	0	1	3	6	49	0	0	0	0	0	0	0	0	1	2	4	55	2	0	0	0	0	4.54	<table><tr><td>3</td><td>6</td><td>49</td><td>1</td></tr><tr><td>2</td><td>4</td><td>55</td><td>3</td></tr></table>	3	6	49	1	2	4	55	3	Es	1.75																
0	0	0	1	3	6	49	0	0	0	0	0																																										
0	0	0	1	2	4	55	2	0	0	0	0																																										
3	6	49	1																																																		
2	4	55	3																																																		
URANUS	<table><tr><td>0</td><td>0</td><td>4</td><td>54</td><td>0</td><td>0</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>0</td><td>0</td><td>4</td><td>59</td><td>0</td><td>0</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr></table>	0	0	4	54	0	0	1	0	0	0	0	0	0	0	4	59	0	0	1	0	0	0	0	0	2.75	<table><tr><td>0</td><td>0</td><td>5</td><td>54</td></tr><tr><td>0</td><td>0</td><td>5</td><td>59</td></tr><tr><td>F</td><td>E</td><td>A</td><td>W</td></tr></table>	0	0	5	54	0	0	5	59	F	E	A	W	Es	0.02												
0	0	4	54	0	0	1	0	0	0	0	0																																										
0	0	4	59	0	0	1	0	0	0	0	0																																										
0	0	5	54																																																		
0	0	5	59																																																		
F	E	A	W																																																		
NEPTUNE	<table><tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>59</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>64</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td><td>♈</td></tr></table>	0	0	0	0	0	0	59	0	0	0	0	0	0	0	0	0	0	0	64	0	0	0	0	0	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	0.01	<table><tr><td>0</td><td>0</td><td>59</td><td>0</td></tr><tr><td>0</td><td>0</td><td>64</td><td>0</td></tr><tr><td>FIRE</td><td>EARTH</td><td>AIR</td><td>WATER</td></tr></table>	0	0	59	0	0	0	64	0	FIRE	EARTH	AIR	WATER	Es	0.00
0	0	0	0	0	0	59	0	0	0	0	0																																										
0	0	0	0	0	0	64	0	0	0	0	0																																										
♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈																																										
0	0	59	0																																																		
0	0	64	0																																																		
FIRE	EARTH	AIR	WATER																																																		
PLUTO	<table><tr><td>0</td><td>0</td><td>0</td><td>0</td><td>51</td><td>8</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>0</td><td>0</td><td>0</td><td>0</td><td>48</td><td>16</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr></table>	0	0	0	0	51	8	0	0	0	0	0	0	0	0	0	0	48	16	0	0	0	0	0	0	0.00	<table><tr><td>51</td><td>8</td><td>0</td><td>0</td></tr><tr><td>48</td><td>16</td><td>0</td><td>0</td></tr></table>	51	8	0	0	48	16	0	0	Es	2.56																
0	0	0	0	51	8	0	0	0	0	0	0																																										
0	0	0	0	48	16	0	0	0	0	0	0																																										
51	8	0	0																																																		
48	16	0	0																																																		

df=11

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level II Love  
Ptolemaic System Es = 23 Cs = 64

74

CHI<sup>2</sup>

ASCENDANT	4	6	7	6	Es	0.42
	15	14	19	16	Cs	
	FIRE	EARTH	AIR	WATER		

SUN	3	7	10	3	Es	3.65
	12	14	19	19	Cs	
	F	E	A	W		

MOON	5	3	8	7	Es	1.60
	21	11	17	15	Cs	

MERCURY	8	6	3	6	Es	3.81
	17	8	12	27	Cs	

VENUS	10	6	1	6	Es	2.47
	20	18	10	16	Cs	
	F	E	A	W		

MARS	7	8	4	4	Es	1.65
	16	18	10	20	Cs	

JUPITER	2	12	7	2	Es	0.60
	5	28	24	7	Cs	

SATURN	1	3	18	1	Es	1.17
	2	4	55	3	Cs	

URANUS	0	0	2	21	Es	0.02
	0	0	5	59	Cs	
	F	E	A	W		

NEPTUNE	0	0	23	0	Es	0.00
	0	0	64	0	Cs	
	FIRE	EARTH	AIR	WATER		

PLUTO	19	4	0	0	Es	0.55
	48	16	0	0	Cs	

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level II Hate  
Ptolemaic System Es = 36 Cs = 64

75

CHI<sup>2</sup>

ASCENDANT

10	9	12	5	Es
15	14	19	16	Cs
FIRE EARTH AIR WATER				

1.72

SUN

12	9	7	8	Es
12	14	19	19	Cs
F E A W				

3.54

MOON

7	11	7	11	Es
21	11	17	15	Cs

4.28

MERCURY

12	8	4	12	Es
17	8	12	27	Cs

3.03

VENUS

11	7	10	8	Es
20	18	10	16	Cs
F E A W				

2.47

MARS

9	10	8	9	Es
16	18	10	20	Cs

0.87

JUPITER

5	17	8	6	Es
5	28	24	7	Cs

3.17

SATURN

2	3	31	0	Es
2	4	55	3	Cs

2.17

URANUS

0	0	3	33	Es
0	0	5	59	Cs
F E A W				

0.01

NEPTUNE

0	0	36	0	Es
0	0	64	0	Cs
FIRE EARTH AIR WATER				

0.00

PLUTO

32	4	0	0	Es
48	16	0	0	Cs

2.78

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level I DOM  
Siderial System Es = 57 Cs = 64

76

CH<sub>1</sub><sup>2</sup>

18.07

2	2	9	3	5	6	5	8	4	2	6	5
2	3	4	9	9	12	12	5	3	3	1	1
♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈

CH<sub>1</sub><sup>2</sup>

2.52

11	10	20	16	Es
14	18	17	15	Cs
FIRE	EARTH	AIR	WATER	

SUN

7.16

2	4	8	5	2	7	5	3	6	6	4	5
4	5	6	5	7	4	10	5	5	4	5	4

Es

3.15

10	19	15	13	Es
16	13	21	14	Cs
F	E	A	W	

MOON

11.60

6	5	5	5	7	6	7	1	6	3	4	2
5	4	9	4	3	4	7	7	5	6	3	7

Es

4.84

19	14	16	8	Es
13	14	19	18	Cs

MERCURY

10.12

2	7	3	7	1	3	5	11	3	5	6	4
1	2	7	7	6	5	8	9	5	4	5	5

Es

3.30

6	15	14	22	Es
12	11	20	21	Cs

VENUS

11.04

7	5	7	1	3	7	3	8	3	4	3	6
9	5	3	6	7	3	5	5	2	5	6	8
♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈

Es

1.22

13	16	13	15	Es
18	13	14	19	Cs
F	E	A	W	

MARS

12.76

4	5	8	3	5	10	7	3	5	3	1	3
5	6	6	6	9	4	4	5	5	2	9	3

Es

2.91

14	18	16	9	Es
19	12	19	14	Cs

JUPITER

13.15

17	12	4	0	0	0	4	1	2	3	3	11
25	16	9	0	1	0	1	1	1	0	6	4

Es

4.84

19	15	11	12	Es
27	16	16	5	Cs

SATURN

9.49

0	1	1	5	5	36	9	0	0	0	0	0
0	0	1	2	1	39	21	0	0	0	0	0

Es

8.13\*

5	37	10	5	Es
1	39	22	2	Cs

URANUS

0.93

0	4	53	0	0	0	0	0	0	0	0	0
0	2	61	0	0	1	0	0	0	0	0	0

Es

0.30

0	4	53	0	Es
0	3	61	0	Cs
F	E	A	W	

NEPTUNE

2.18

0	0	0	0	0	53	4	0	0	0	0	0
0	0	0	0	0	54	10	0	0	0	0	0
♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈

Es

2.18

0	53	4	0	Es
0	54	10	0	Cs
FIRE	EARTH	AIR	WATER	

PLUTO

1.55

0	0	0	13	44	0	0	0	0	0	0	0
0	0	0	9	55	0	0	0	0	0	0	0

Es

1.55

44	0	0	13	Es
55	0	0	9	Cs

df=11

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level I Dom  
Siderial System Es = 25 Cs = 64

77

$\chi^2$

ASCENDANT

3	6	8	8	Es
14	18	17	15	Cs
FIRE EARTH AIR WATER				

1.73

SUN

7	3	9	6	Es
16	13	21	14	Cs
F E A W				

0.84

MOON

8	6	6	5	Es
13	14	19	18	Cs

1.74

MERCURY

4	7	4	10	Es
12	11	20	21	Cs

2.93

VENUS

5	7	5	8	Es
18	13	14	19	Cs
F E A W				

0.99

MARS

5	9	8	3	Es
19	12	19	14	Cs

3.84

JUPITER

5	7	6	7	Es
27	16	16	5	Cs

7.97

SATURN

2	18	3	2	Es
1	39	22	2	Cs

6.70

URANUS

0	0	25	0	Es
0	3	61	0	Cs
F E A W				

1.21

NEPTUNE

0	24	1	0	Es
0	54	10	0	Cs
FIRE EARTH AIR WATER				

2.24

PLUTO

21	0	0	4	Es
55	0	0	9	Cs

0.05

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level I Sub  
Siderial System Es = 32 Cs = 64

78

CHI<sup>2</sup>

ASCENDANT

8	4	12	8	Es
14	18	17	15	Cs
FIRE EARTH AIR WATER				

3.23

SUN

3	14	8	7	Es
15	13	21	14	Cs
F E A W				

6.81

MOON

11	8	10	3	Es
13	14	19	18	Cs

5.22

MERCURY

2	8	10	12	Es
12	11	20	21	Cs

3.08

VENUS

8	9	8	7	Es
18	13	14	19	Cs
F E A W				

1.22

MARS

9	9	8	6	Es
19	12	19	14	Cs

1.14

JUPITER

14	8	5	5	Es
27	16	16	5	Cs

2.12

SATURN

3	19	7	3	Es
1	39	22	2	Cs

5.84

URANUS

0	4	28	0	Es
0	3	61	0	Cs
F E A W				

1.93

NEPTUNE

0	29	3	0	Es
0	54	10	0	Cs
FIRE EARTH AIR WATER				

0.71

PLUTO

23	0	0	9	Es
55	0	0	9	Cs

2.77

df=3



Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level I IOV

79

Siderial System Es = 63 Cs = 64

CH<sub>1</sub><sup>2</sup>

ASCENDANT

4	4	7	2	5	9	4	8	7	5	4	4
2	3	4	9	9	12	12	5	3	3	1	1
♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈

18.04

CH<sub>1</sub><sup>2</sup>

16	18	15	14
14	18	17	15
FIRE	EARTH	AIR	WATER

Es 0.28  
Cs 0.28

SUN

4	8	6	5	4	6	4	6	1	10	3	6
4	5	6	5	7	4	10	5	5	4	5	4

10.70

9	24	13	17
16	13	21	14
F	E	A	W

Es 7.40  
Cs 7.40

MOON

4	5	4	7	3	5	9	5	5	6	4	6
5	4	9	4	3	4	7	7	5	6	3	7

3.87

12	16	17	18
13	14	19	18

Es 0.28  
Cs 0.28

MERCURY

5	4	7	7	1	4	4	10	1	7	6	7
1	2	7	7	6	5	8	9	5	4	5	5

13.06

7	15	17	24
12	11	20	21

Es 2.37  
Cs 2.37

VENUS

7	5	5	4	6	2	4	4	3	4	2	17
9	5	3	6	7	3	5	5	2	5	6	8
♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈

7.19

16	11	11	25
18	13	14	19
F	E	A	W

Es 1.45  
Cs 1.45

MARS

4	9	8	4	7	4	6	5	4	4	3	5
5	6	6	6	9	4	4	5	5	2	9	3

6.32

15	17	17	14
19	12	19	14

Es 1.44  
Cs 1.44

JUPITER

18	15	5	0	1	0	5	2	2	2	7	6
25	16	9	0	1	0	1	1	1	0	6	4

10.91

21	17	17	8
27	16	16	5

Es 1.50  
Cs 1.50

SATURN

0	1	2	6	6	34	14	0	0	0	0	0
0	0	1	2	1	39	21	0	0	0	0	0

8.64

6	35	16	6
1	39	22	2

Es 6.73  
Cs 6.73

URANUS

0	6	56	1	0	0	0	0	0	0	0	0
0	2	61	0	1	0	0	0	0	0	0	0

3.21

0	6	56	1
0	3	61	0
F	E	A	W

Es 2.21  
Cs 2.21

NEPTUNE

0	0	0	0	0	58	5	0	0	0	0	0
0	0	0	0	0	54	10	0	0	0	0	0
♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈

1.80

0	58	5	0
0	54	10	0
F	E	A	W

Es 1.80  
Cs 1.80

PLUTO

0	0	0	11	51	1	0	0	0	0	0	0
0	0	0	9	55	0	0	0	0	0	0	0

1.34

51	1	0	11
55	0	0	9

Es 1.34  
Cs 1.34

df=11

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level I Love  
Siderial System Es = 28 Cs = 64

80

ASCENDANT	8	1	3	6	Es	3.42
	14	18	17	15	Cs	
	FIRE	EARTH	AIR	WATER		
SUN	6	11	6	5	Es	3.80
	16	13	21	14	Cs	
	F	E	A	W		
MOON	6	5	5	12	Es	2.51
	13	14	19	18	Cs	
MERCURY	5	8	7	8	Es	1.60
	12	11	20	21	Cs	
VENUS	10	6	2	10	Es	3.04
	18	13	14	19	Cs	
	F	E	A	W		
MARS	6	8	9	5	Es	1.54
	19	12	19	14	Cs	
JUPITER	9	7	9	3	Es	1.06
	27	16	16	5	Cs	
SATURN	3	14	9	2	Es	4.91
	1	39	22	2	Cs	
URANUS	0	2	25	1	Es	0.27
	0	3	61	0	Cs	
	F	E	A	W		
NEPTUNE	0	24	4	0	Es	0.03
	0	54	10	0	Cs	
	FIRE	EARTH	AIR	WATER		
PLUTO	25	1	0	2	Es	3.09
	55	0	0	9	Cs	

Chi<sup>2</sup>

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level I Hate  
Siderial System Es = 35 Cs = 64

81

$\chi^2$

ASCENDANT

8	7	12	8	Es
14	18	17	15	Cs
FIRE EARTH AIR WATER				

1.07

SUN

3	3	7	12	Es
16	13	21	14	Cs
F E A W				

8.26\*

MOON

6	11	12	6	Es
13	14	19	18	Cs

2.21

MERCURY

2	7	10	16	Es
12	11	20	21	Cs

3.88

VENUS

6	5	9	15	Es
18	13	14	19	Cs
F E A W				

2.86

MARS

9	9	8	9	Es
19	12	19	14	Cs

1.17

JUPITER

12	10	8	5	Es
27	16	16	5	Cs

1.45

SATURN

3	21	7	4	Es
1	39	22	2	Cs

6.92

URANUS

0	4	31	0	Es
0	3	61	0	Cs
F E A W				

1.56

NEPTUNE

0	34	1	0	Es
0	54	10	0	Cs
FIRE EARTH AIR WATER				

3.73

PLUTO

26	0	0	9	Es
55	0	0	9	Cs

2.06

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level II DOM

82

Sidereal System Es = 61 Cs = 64

ASCENDANT

6	3	9	8	9	0	7	2	4	4	6	3
2	3	4	9	9	12	12	5	3	3	1	1
♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈

CHI<sup>2</sup>

23.38\*

19	7	22	13	Es
14	18	17	15	Cs
FIRE EARTH AIR WATER				

CHI<sup>2</sup>

6.31

SUN

9	6	8	5	2	7	2	5	4	7	3	3
4	5	6	5	7	4	10	5	5	4	5	4

12.74

15	20	13	13	Es
16	13	21	14	Cs
F E A W				

3.37

MOON

8	4	4	6	5	5	11	3	4	6	4	1
5	4	9	4	3	4	7	7	5	6	3	7

10.80

17	15	19	10	Es
13	14	19	18	Cs

2.78

MERCURY

2	5	7	6	2	3	5	9	1	8	3	10
1	2	7	7	6	5	8	9	5	4	5	5

10.99

5	16	15	25	Es
12	11	20	21	Cs

4.80

VENUS

9	5	8	4	6	6	1	2	2	7	1	10
9	5	3	6	7	3	5	5	2	5	6	8
♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈

11.76

17	18	10	16	Es
18	13	14	19	Cs
F E A W				

1.69

MARS

5	9	6	3	9	10	8	2	3	3	0	3
5	6	6	6	9	4	4	5	5	2	9	3

16.43

17	22	14	8	Es
19	12	19	14	Cs

5.37

JUPITER

14	14	7	0	1	0	4	1	1	5	6	8
25	16	9	0	1	0	1	1	1	0	6	4

11.55

16	19	17	9	Es
27	16	16	5	Cs

4.17

SATURN

0	1	2	5	8	32	13	0	0	0	0	0
0	0	1	2	1	39	21	0	0	0	0	0

10.57

8	33	15	5	Es
1	39	22	2	Cs

8.49\*

URANUS

0	2	58	1	0	0	0	0	0	0	0	0
0	2	61	0	0	1	0	0	0	0	0	0

1.04

0	2	58	1	Es
0	3	61	0	Cs
F E A W				

1.20

NEPTUNE

0	0	0	0	0	55	6	0	0	0	0	0
0	0	0	0	0	54	10	0	0	0	0	0
♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈

0.94

0	55	6	0	Es
0	54	10	0	Cs
FIRE EARTH AIR WATER				

0.94

PLUTO

0	0	0	11	50	0	0	0	0	0	0	0
0	0	0	9	55	0	0	0	0	0	0	0

0.37

50	0	0	0	Es
55	0	0	9	Cs

0.37

df=11

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level II Dom  
Siderial System Es = 26 Cs = 64

83

Chi<sup>2</sup>

ASCENDANT

6	4	11	5	Es
14	18	17	15	Cs
FIRE EARTH AIR WATER				

2.86

SUN

9	5	6	6	Es
16	13	21	14	Cs
F E A W				

1.22

MOON

10	5	6	5	Es
13	14	19	18	Cs

3.31

MERCURY

3	5	5	13	Es
12	11	20	21	Cs

3.03

VENUS

7	10	3	6	Es
18	13	14	19	Cs
F E A W				

3.73

MARS

8	9	6	3	Es
19	12	19	14	Cs

3.34

JUPITER

4	9	9	4	Es
27	16	16	5	Cs

6.15

SATURN

3	15	7	1	Es
1	39	22	2	Cs

4.52

URANUS

0	1	25	0	Es
0	3	61	0	Cs
F E A W				

0.31

NEPTUNE

0	25	1	0	Es
0	54	10	0	Cs
FIRE EARTH AIR WATER				

2.39

PLUTO

25	0	0	1	Es
55	0	0	9	Cs

1.95

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level II Sub  
Siderial System Es = 35 Cs = 64

84

CHI<sup>2</sup>

ASCENDANT

13	3	11	8	Es
14	18	17	15	Cs
FIRE EARTH AIR WATER				

6.20

SUN

6	15	7	7	Es
16	13	21	4	Cs
F E A W				

6.05

MOON

7	10	13	5	Es
13	14	19	18	Cs

2.67

MERCURY

2	11	10	12	Es
12	11	20	21	Cs

4.85

VENUS

10	8	7	10	Es
18	13	14	19	Cs
F E A W				

0.12

MARS

9	13	8	5	Es
19	12	19	14	Cs

4.22

JUPITER

12	10	8	5	Es
27	16	16	5	Cs

1.45

SATURN

5	18	8	4	Es
1	39	22	2	Cs

9.96\*

URANUS

0	1	33	1	Es
0	3	61	0	Cs
F E A W				

2.02

NEPTUNE

0	34	1	0	Es
0	54	10	0	Cs
FIRE EARTH AIR WATER				

3.73

PLUTO

25	0	0	10	Es
55	0	0	19	Cs

3.07

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level II LOV

85

Sidereal System Es = 59 Cs = 64

CH<sup>2</sup>

	2	6	7	6	6	4	4	6	4	8	2	4
ASCENDANT	2	3	4	9	9	12	12	5	3	3	1	1
	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈

15.48

CH<sup>2</sup>

	12	18	13	16	Es
	14	18	17	15	Cs 0.52
	FIRE	EARTH	AIR	WATER	

	11	6	3	5	2	4	2	4	5	5	7	5
SUN	4	5	6	5	7	4	10	5	5	4	5	4

12.95

	18	15	12	14	Es
	16	13	21	14	Cs 2.52
	F	E	A	W	

	3	5	6	2	6	6	5	4	5	4	5	8
MOON	5	4	9	4	3	4	7	7	5	6	3	7

5.20

	14	15	16	14	Es
	13	14	19	18	Cs 0.63

	5	4	3	6	2	1	4	6	5	5	8	10
MERCURY	1	2	7	7	6	5	8	9	5	4	5	5

13.90

	12	10	15	22	Es
	12	11	20	21	Cs 0.58

	10	6	7	2	2	3	3	4	1	4	2	5
VENUS	9	5	3	6	7	3	5	5	2	5	6	8
	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈

11.52

	13	13	12	21	Es
	18	13	14	19	Cs 0.86
	F	E	A	W	

	5	9	2	5	5	6	7	2	4	3	3	8
MARS	5	6	6	6	9	4	4	5	5	2	9	3

11.74

	14	18	12	15	Es
	19	12	19	14	Cs 3.38

	25	13	3	0	1	0	1	0	2	2	8	4
JUPITER	25	16	9	0	1	0	1	1	1	0	6	4

6.73

	28	15	12	4	Es
	27	16	16	5	Cs 0.53

	0	0	1	3	6	31	18	0	0	0	0	0
SATURN	0	0	1	2	1	39	21	0	0	0	0	0

4.72

	6	31	19	3	Es
	1	39	22	2	Cs 4.71

	0	2	56	0	0	1	0	0	0	0	0	0
URANUS	0	2	61	0	0	1	0	0	0	0	0	0

0.01

	0	3	56	0	Es
	0	3	61	0	Cs 0.01
	F	E	A	W	

	0	0	0	0	0	51	8	0	0	0	0	0
NEPTUNE	0	0	0	0	0	54	10	0	0	0	0	0
	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈	♈

0.10

	0	51	8	0	Es
	0	54	10	0	Cs 0.10
	FIRE	EARTH	AIR	WATER	

	0	0	0	6	53	0	0	0	0	0	0	0
PLUTO	0	0	0	9	55	0	0	0	0	0	0	0

0.43

	53	0	0	6	Es
	55	0	0	9	Cs 0.43

df=11

df=3

$$CH_2$$

	4	8	6	5	Es
ASCENDANT	14	18	17	15	Cs
	FIRE	EARTH	AIR	WATER	

SUN

6	10	4	3	Es
16	13	21	14	Cs

F E A W

5.52

3	8	7	5	Es
13	14	19	18	Cs

MOON 1.87

MERCURY

5	5	6	7	Es
12	11	20	21	Cs

0.45

VENUS

7	3	5	8	$E_S$
18	13	14	19	$C_S$
F	E	A	W	

0.66

MARS

7	6	6	4	Es
19	12	19	14	Cs 0.68

JUPITER

11	6	5	1	Es
27	16	16	5	Cs

0.50

	3	10	9	1	$E_s$
SATURN	1	39	22	2	$C_s$ 5.95

0	1	22	0	Es
0	3	61	0	Cs

URANUS

F E A W

0.00

	0	19	4	0	Es
NEPTUNE	0	54	10	0	Cs
	FIRE EARTH AIR WATER				0.04

20	0	0	3	Es
55	0	0	9	Cs

PLUTO 0.01

$$df = 3$$



Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for Leary Level II Hate  
Siderial System Es = 36 Cs = 64

87

CHI<sup>2</sup>

ASCENDANT

8	10	7	11	Es
14	18	17	15	Cs
FIRE EARTH AIR WATER				

0.94

SUN

12	5	8	11	Es
16	13	21	14	Cs
F E A W				

2.69

MOON

11	7	9	9	Es
13	14	19	18	Cs

1.34

MERCURY

7	5	9	15	Es
12	11	20	21	Cs

0.97

VENUS

6	10	7	13	Es
18	13	14	19	Cs
F E A W				

2.18

MARS

7	12	6	11	Es
19	12	19	14	Cs

5.23

JUPITER

17	9	7	3	Es
27	16	16	5	Cs

0.45

SATURN

3	21	10	2	Es
1	39	22	2	Cs

3.32

URANUS

0	2	34	0	Es
0	3	61	0	Cs
F E A W				

0.04

NEPTUNE

0	32	4	0	Es
0	54	10	0	Cs
FIRE EARTH AIR WATER				

0.39

PLUTO

33	0	0	3	Es
55	0	0	9	Cs

0.72

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for MMPI D  
Ptolemaic System Es = 22 Cs = 86

88

$\chi^2$

ASCENDANT	3	6	6	7	Es
	23	20	25	18	Cs
FIRE EARTH AIR WATER					2.28

SUN	6	4	7	5	Es
	18	24	22	22	Cs
F E A W					1.27

MOON	4	4	7	7	Es
	28	22	18	18	Cs
					3.41

MERCURY	6	5	2	9	Es
	24	20	13	29	Cs
					0.72

VENUS	3	6	5	8	Es
	30	29	16	11	Cs
F E A W					8.50*

MARS	5	9	3	5	Es
	20	25	22	19	Cs
					0.91

JUPITER	5	8	5	4	Es
	10	34	33	9	Cs
					3.68

SATURN	4	3	14	1	Es
	3	11	67	5	Cs
					6.37

URANUS	0	0	6	16	Es
	0	0	8	78	Cs
F E A W					5.01

NEPTUNE	0	0	22	0	Es
	0	0	86	0	Cs
FIRE EARTH AIR WATER					0.00

PLUTO	20	2	0	0	Es
	62	24	0	0	Cs
					3.39

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for MMPI Pt  
Ptolemaic System Es = 43 Cs = 86

89

ASCENDANT	7	11	11	14	Es	CHI <sup>2</sup> 3.10
	23	20	25	18	Cs	
	FIRE EARTH AIR WATER					
SUN	11	4	18	10	Es	7.36
	18	24	22	22	Cs	
	F E A W					
MOON	12	7	14	10	Es	2.94
	28	22	18	18	Cs	
MERCURY	16	3	10	14	Es	6.14
	24	20	13	29	Cs	
VENUS	12	9	8	14	Es	7.80
	30	29	16	11	Cs	
	F E A W					
MARS	8	8	12	15	Es	3.35
	20	25	22	19	Cs	
JUPITER	6	19	13	5	Es	0.84
	10	34	33	9	Cs	
SATURN	5	3	35	0	Es	6.50
	3	11	67	5	Cs	
URANUS	0	0	7	36	Es	1.36
	0	0	8	78	Cs	
	F E A W					
NEPTUNE	0	0	43	0	Es	0.00
	0	0	86	0	Cs	
	FIRE EARTH AIR WATER					
PLUTO	35	8	0	0	Es	1.33
	62	24	0	0	Cs	

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for MMPI Sc  
Ptolemaic System Es = 54 Cs = 86

90

ASCENDANT	10	10	24	10	Es	CHI <sup>2</sup> 3.63
	23	20	25	18	Cs	
	FIRE EARTH AIR WATER					
SUN	13	8	21	12	Es	4.70
	18	24	22	22	Cs	
	F E A W					
MOON	13	11	14	16	Es	2.59
	28	22	18	18	Cs	
MERCURY	20	9	10	15	Es	2.18
	24	20	13	29	Cs	
VENUS	17	10	10	17	Es	8.66*
	30	29	16	11	Cs	
	F E A W					
MARS	10	12	14	18	Es	2.52
	20	25	22	19	Cs	
JUPITER	9	21	17	7	Es	1.24
	10	34	33	9	Cs	
SATURN	4	5	43	2	Es	1.69
	3	11	67	5	Cs	
URANUS	0	0	8	46	Es	1.00
	0	0	8	78	Cs	
	F E A W					
NEPTUNE	0	0	54	0	Es	0.00
	0	0	86	0	Cs	
	FIRE EARTH AIR WATER					
PLUTO	42	12	0	0	Es	4.51
	52	34	0	0	Cs	

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for MMPI Ma  
Ptolemaic System Es = 41 Cs = 86

91

					CHI <sup>2</sup>
	8	6	15	2	Es
ASCENDANT	23	20	25	18	Cs
	FIRE	EARTH	AIR	WATER	2.92
	13	6	10	12	Es
SUN	18	24	22	22	Cs
	F	E	A	W	3.55
	7	9	11	14	Es
MOON	28	22	18	18	Cs
					4.91
	14	4	7	16	Es
MERCURY	24	20	13	29	Cs
					3.32
	16	7	8	10	Es
VENUS	30	29	16	11	Cs
	F	E	A	W	5.12
	6	12	10	13	Es
MARS	20	25	22	19	Cs
					2.04
	6	15	16	4	Es
JUPITER	10	34	33	9	Cs
					0.27
	3	3	34	1	Es
SATURN	3	11	67	5	Cs
					5.17
	0	0	5	36	Es
URANUS	0	0	8	78	Cs
	F	E	A	W	0.25
	0	0	41	0	Es
NEPTUNE	0	0	86	0	Cs
	FIRE	EARTH	AIR	WATER	0.00
	28	13	0	0	Es
PLUTO	62	24	0	0	Cs
					0.19

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for MMPI HyD  
Ptolemaic System Es = 45 Cs = 86

92

CHI<sup>2</sup>

ASCENDANT

8	12	14	11	Es
23	20	25	18	Cs
FIRE EARTH AIR WATER				

1.35

SUN

8	18	16	9	Es
18	24	22	22	Cs
F E A W				

1.57

MOON

14	13	8	10	Es
28	22	18	18	Cs

3.11

MERCURY

16	9	12	8	Es
24	20	13	29	Cs

5.43

VENUS

16	12	10	7	Es
30	29	16	11	Cs
F E A W				

0.83

MARS

7	12	12	14	Es
20	25	22	19	Cs

1.87

JUPITER

5	16	19	5	Es
10	34	33	9	Cs

0.25

SATURN

1	9	30	5	Es
3	11	67	5	Cs

2.75

URANUS

0	0	6	39	Es
0	0	8	78	Cs
F E A W				

0.50

NEPTUNE

0	0	45	0	Es
0	0	86	0	Cs
FIRE EARTH AIR WATER				

0.00

PLUTO

36	9	0	0	Es
62	24	0	0	Cs

0.48

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for MMPI D  
Siderial System Es = 22 Cs = 86

93

$\chi^2$

ASCENDANT

6	3	11	2	Es
18	25	19	24	Cs
FIRE EARTH AIR WATER				

9.41\*

SUN

3	7	4	8	Es
22	23	18	23	Cs
F E A W				

1.87

MOON

3	7	8	4	Es
25	16	20	25	Cs

4.98

MERCURY

3	3	9	7	Es
20	14	23	29	Cs

2.04

VENUS

3	7	6	6	Es
30	17	13	26	Cs
F E A W				

5.26

MARS

7	7	4	4	Es
28	25	20	13	Cs

0.36

JUPITER

8	5	4	5	Es
31	22	23	10	Cs

2.13

SATURN

4	2	12	4	Es
6	50	27	3	Cs

19.56\*\*

URANUS

0	4	18	0	Es
0	4	82	0	Cs
F E A W				

4.68

NEPTUNE

0	19	3	0	Es
0	82	4	0	Cs
FIRE EARTH AIR WATER				

2.33

PLUTO

14	0	0	8	Es
74	0	0	12	Cs

5.83

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for MMPI Pt  
Siderial System Es = 43 Cs = 86

94

$\chi^2$

ASCENDANT

10	10	15	8	Es
18	25	19	24	Cs
FIRE EARTH AIR WATER				

3.21

SUN

2	18	8	15	Es
22	23	18	23	Cs
F E A W				

9.53\*

MOON

11	15	8	9	Es
25	16	20	25	Cs

4.29

MERCURY

2	11	15	15	Es
20	14	23	29	Cs

7.75

VENUS

13	10	10	10	Es
30	17	13	26	Cs
F E A W				

1.92

MARS

8	12	13	10	Es
28	25	20	13	Cs

3.62

JUPITER

19	12	6	6	Es
31	22	23	10	Cs

2.76

SATURN

3	23	12	5	Es
6	50	27	3	Cs

0.93

URANUS

0	3	40	0	Es
0	4	82	0	Cs
F E A W				

0.30

NEPTUNE

0	39	4	0	Es
0	82	4	0	Cs
FIRE EARTH AIR WATER				

1.07

PLUTO

34	0	0	9	Es
74	0	0	12	Cs

1.02

df=3



Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for MMPI Sc  
Siderial System Es = 54 Cs = 86

95

$\chi^2$

ASCENDANT

10	17	17	10	Es
18	25	19	24	Cs
FIRE EARTH AIR WATER				

2.50

SUN

6	22	11	15	Es
22	23	18	23	Cs
F E A W				

5.51

MOON

11	16	16	11	Es
25	16	20	25	Cs

4.24

MERCURY

5	14	15	20	Es
20	14	23	29	Cs

5.30

VENUS

11	12	13	18	Es
30	17	13	26	Cs
F E A W				

4.02

MARS

11	14	17	12	Es
28	25	20	13	Cs

3.67

JUPITER

21	15	11	7	Es
31	22	23	10	Cs

0.74

SATURN

4	35	11	4	Es
6	50	27	3	Cs

2.76

URANUS

0	5	49	0	Es
0	4	82	0	Cs
F E A W				

1.17

NEPTUNE

0	51	3	0	Es
0	82	4	0	Cs
FIRE EARTH AIR WATER				

0.06

PLUTO

44	0	0	10	Es
74	0	0	12	Cs

0.52

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for MMPI Ma  
Siderial System Es = 41 Cs = 86

96

CHI<sup>2</sup>

ASCENDANT	7	11	16	7	Es	4.48
	18	25	19	24	Cs	
FIRE EARTH AIR WATER						

SUN	6	12	11	12	Es	2.06
	22	23	18	23	Cs	
F E A W						

MOON	9	12	12	8	Es	3.33
	25	16	20	25	Cs	

MERCURY	4	8	13	16	Es	3.31
	20	14	23	29	Cs	

VENUS	11	8	9	13	Es	1.33
	30	17	13	26	Cs	
F E A W						

MARS	9	12	12	8	Es	1.80
	28	25	20	13	Cs	

JUPITER	14	15	8	4	Es	1.87
	31	22	23	10	Cs	

SATURN	2	23	13	3	Es	1.08
	6	50	27	3	Cs	

URANUS	0	1	40	0	Es	0.36
	0	4	82	0	Cs	
F E A W						

NEPTUNE	0	36	5	0	Es	2.40
	8	82	4	0	Cs	
FIRE EARTH AIR WATER						

PLUTO	36	0	0	5	Es	0.74
	74	0	0	12	Cs	

df = 3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Signs for MMPI HyD  
Siderial System Es = 45 Cs = 86

97

					CHI <sup>2</sup>
	10	14	12	9	Es
ASCENDANT	18	25	19	24	Cs
	FIRE EARTH AIR WATER				1.06
	13	18	8	6	Es
SUN	22	23	18	23	Cs
	F E A W				4.33
	13	9	9	14	Es
MOON	25	16	20	25	Cs
					0.21
	8	10	9	18	Es
MERCURY	20	14	23	29	Cs
					1.86
	13	11	5	16	Es
VENUS	30	17	13	26	Cs
	F E A W				1.23
	10	15	14	6	Es
MARS	28	25	20	13	Cs
					2.03
	13	15	11	6	Es
JUPITER	31	22	23	10	Cs
					1.21
	5	25	14	1	Es
SATURN	6	50	27	3	Cs
					0.79
	0	4	41	0	Es
URANUS	0	4	82	0	Cs
	F E A W				0.93
	0	41	4	0	Es
NEPTUNE	0	82	4	0	Cs
	FIRE EARTH AIR WATER				0.93
	41	0	0	4	Es
PLUTO	74	0	0	12	Cs
					0.71

df=3

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Houses for Leary Level I DOM  
Es = 57 Cs = 64

98

$\chi^2$

SUN

5	7	3	1	7	5	2	4	6	3	5	9	Es
9	5	8	5	5	3	5	6	5	6	5	2	Cs
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	

14.12

MOON

8	5	3	4	6	3	4	4	6	5	5	4	Es
4	8	5	3	7	5	4	5	3	9	5	6	Cs

5.51

MERCURY

9	4	4	2	5	5	4	2	4	5	5	8	Es
5	5	9	7	5	1	3	5	4	8	5	7	Cs

10.44

VENUS

11	4	6	2	3	7	4	6	1	2	8	3	Es
2	13	2	6	2	6	5	8	7	5	3	5	Cs

23.90\*

MARS

2	8	4	3	1	5	5	3	5	6	5	10	Es
2	9	4	5	4	4	8	3	4	10	3	8	Cs
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	

4.61

JUPITER

7	8	2	6	7	5	4	5	4	3	3	3	Es
3	3	2	4	3	4	10	10	12	3	5	5	Cs

14.87

SATURN

7	7	4	2	3	2	6	6	2	6	7	5	Es
13	11	7	4	2	3	0	2	4	3	8	7	Cs

14.28

URANUS

4	2	2	8	4	2	6	7	4	8	5	5	Es
4	3	3	0	2	2	3	7	8	14	10	8	Cs

15.04

NEPTUNE

10	4	4	5	1	2	5	7	2	5	8	4	Es
12	10	10	2	3	2	1	2	2	4	8	8	Cs
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	

14.14

PLUTO

3	8	1	3	4	6	4	5	6	5	7	5	Es
6	6	3	1	2	2	4	2	5	7	12	14	Cs

12.87

df=11

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Houses for Leary Level I LOV  
ES = 63 Cs = 64

99

$\chi^2$

SUN

4	11	1	3	9	6	4	3	5	3	9	5	Es
9	5	8	5	5	3	5	6	5	6	5	2	Cs
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	

16.79

MOON

8	5	7	5	6	3	2	6	5	9	4	3	Es
4	8	5	3	7	5	4	5	3	9	5	6	Cs

5.80

MERCURY

5	8	5	2	6	7	3	4	3	8	7	5	Es
5	5	9	7	5	1	3	5	4	8	5	7	Cs

10.12

VENUS

7	6	4	4	3	8	7	3	3	8	6	4	Es
2	13	2	6	2	6	5	8	7	5	3	5	Cs

12.91

MARS

6	5	2	6	2	8	5	6	5	12	3	3	Es
2	9	4	5	4	4	8	3	4	10	3	8	Cs
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	

10.15

JUPITER

7	7	3	7	5	3	7	6	6	5	6	1	Es
3	3	2	4	3	4	10	10	12	3	5	5	Cs

11.64

SATURN

8	8	5	5	3	2	4	7	5	5	7	4	Es
13	11	7	4	2	3	0	2	4	3	8	7	Cs

10.78

URANUS

6	1	4	5	2	8	7	5	5	9	4	7	Es
4	3	3	0	2	2	3	7	8	14	10	8	Cs

16.49

NEPTUNE

11	4	3	8	2	3	5	4	6	6	7	4	Es
12	10	10	2	3	2	1	2	2	4	8	8	Cs
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	

17.51

PLUTO

1	8	3	4	5	3	6	8	6	5	7	7	Es
6	6	3	1	2	2	4	2	5	7	12	14	Cs

15.21

df=11

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Houses for Leary Level II DOM  
Es = 61 Cs = 64

100

$\chi^2$

SUN

1	6	6	4	6	5	3	5	4	3	9	9	Es
9	5	8	5	5	3	5	6	5	6	5	2	Cs
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	

14.71

MOON

7	4	5	7	7	3	6	7	3	4	3	5	Es
4	8	5	3	7	5	4	5	3	9	5	6	Cs

7.43

MERCURY

4	5	7	3	8	4	6	3	2	6	8	5	Es
5	5	9	7	5	1	3	5	4	8	5	7	Cs

7.86

VENUS

6	7	6	3	2	8	7	3	3	2	12	2	Es
2	13	2	6	2	6	5	8	7	5	3	5	Cs

19.20

MARS

5	4	4	2	1	4	8	6	7	5	7	8	Es
2	9	4	5	4	4	8	3	4	10	3	8	Cs
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	

11.31

JUPITER

7	8	0	8	2	1	6	5	8	4	8	4	Es
3	3	2	4	3	4	10	10	12	3	5	5	Cs

13.55

SATURN

6	9	7	3	6	5	6	5	3	2	6	3	Es
13	11	7	4	2	3	0	2	4	3	8	7	Cs

15.41

URANUS

5	3	6	6	6	3	2	6	5	4	7	8	Es
4	3	3	0	2	2	3	7	8	14	10	8	Cs

16.30

NEPTUNE

5	6	0	7	2	6	4	8	2	4	4	4	Es
12	10	10	2	3	2	1	2	2	4	8	8	Cs
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	

16.92

PLUTO

7	10	3	5	3	7	5	4	1	5	6	5	Es
6	6	3	1	2	2	4	2	5	7	12	14	Cs

16.70

df=11

Comparison of Experimental and Control Subject Planetary  
Distributions within the Zodiac Houses for Leary Level II IOV  
Es = 59 Cs = 64

101

SUN	2	5	6	3	7	5	4	2	5	4	11	5	Es	CHI <sup>2</sup> 11.94
	9	5	8	5	5	3	5	6	5	6	5	2	Cs	
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII		
MOON	9	5	5	5	3	4	6	8	3	3	5	3	Es	9.73
	4	8	4	3	7	5	4	5	3	9	5	6	Cs	
MERCURY	6	4	5	6	5	3	5	1	4	8	8	4	Es	6.91
	5	5	9	7	5	1	3	5	4	8	5	7	Cs	
VENUS	7	3	8	3	4	6	6	4	3	4	8	3	Es	20.03*
	2	13	2	6	2	6	5	8	7	5	3	5	Cs	
MARS	3	4	4	8	1	4	5	5	7	6	5	7	Es	8.00
	2	9	4	5	4	4	8	3	4	10	3	8	Cs	
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII		
JUPITER	8	9	1	5	3	5	4	8	7	3	4	2	Es	11.15
	3	3	2	4	3	4	10	10	12	3	5	5	Cs	
SATURN	3	13	4	3	5	3	5	7	6	1	7	2	Es	20.52*
	13	11	7	4	2	3	0	2	4	3	8	7	Cs	
URANUS	4	4	3	6	5	7	3	6	3	6	6	6	Es	16.65
	4	4	3	0	2	2	3	7	8	14	10	8	Cs	
NEPTUNE	5	6	7	4	5	3	3	6	8	2	8	2	Es	16.47
	12	10	10	2	3	2	1	2	2	4	8	8	Cs	
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII		
PLUTO	5	8	5	3	3	3	8	4	6	3	4	7	Es	12.13
	6	6	3	1	2	2	4	2	5	7	12	14	Cs	

df=11

Comparison of Experimental and Control Subject Planetary  
Aspect Distributions within the Zodiac for Leary Level I Dom

102

					Es = 25																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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Comparison of Experimental and Control Subject Planetary  
Aspect Distributions within the Zodiac for Leary Level I Sub

Es = 32 Cs = 64

CONJUNCTIONS	<table><tr><td>3</td><td>14</td><td>9</td><td>5</td><td>1</td><td>0</td><td>0</td><td>0</td></tr><tr><td>4</td><td>22</td><td>26</td><td>28</td><td>4</td><td>0</td><td>0</td><td>0</td></tr><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr></table>	3	14	9	5	1	0	0	0	4	22	26	28	4	0	0	0	1	2	3	4	5	6	7	8	2.25	<table><tr><td>17</td><td>14</td><td>1</td><td>0</td></tr><tr><td>26</td><td>34</td><td>4</td><td>0</td></tr><tr><td>1-2</td><td>3-4</td><td>5-6</td><td>7-8</td></tr></table>	17	14	1	0	26	34	4	0	1-2	3-4	5-6	7-8	Es Cs	1.52
	3	14	9	5	1	0	0	0																																	
	4	22	26	28	4	0	0	0																																	
1	2	3	4	5	6	7	8																																		
17	14	1	0																																						
26	34	4	0																																						
1-2	3-4	5-6	7-8																																						
OPPOSITIONS	<table><tr><td>16</td><td>6</td><td>6</td><td>2</td><td>1</td><td>1</td><td>0</td><td>0</td></tr><tr><td>35</td><td>19</td><td>6</td><td>3</td><td>0</td><td>0</td><td>1</td><td>0</td></tr></table>	16	6	6	2	1	1	0	0	35	19	6	3	0	0	1	0	7.17	<table><tr><td>22</td><td>8</td><td>2</td><td>0</td></tr><tr><td>54</td><td>9</td><td>0</td><td>1</td></tr></table>	22	8	2	0	54	9	0	1	Es Cs	6.60												
	16	6	6	2	1	1	0	0																																	
	35	19	6	3	0	0	1	0																																	
22	8	2	0																																						
54	9	0	1																																						
SEXTILES	<table><tr><td>6</td><td>6</td><td>6</td><td>8</td><td>5</td><td>1</td><td>0</td><td>0</td></tr><tr><td>6</td><td>7</td><td>13</td><td>14</td><td>16</td><td>6</td><td>1</td><td>1</td></tr></table>	6	6	6	8	5	1	0	0	6	7	13	14	16	6	1	1	5.58	<table><tr><td>12</td><td>14</td><td>6</td><td>0</td></tr><tr><td>13</td><td>27</td><td>22</td><td>2</td></tr></table>	12	14	6	0	13	27	22	2	Es Cs	5.22												
	6	6	6	8	5	1	0	0																																	
	6	7	13	14	16	6	1	1																																	
12	14	6	0																																						
13	27	22	2																																						
SQUARES	<table><tr><td>5</td><td>7</td><td>6</td><td>5</td><td>7</td><td>1</td><td>0</td><td>1</td></tr><tr><td>8</td><td>10</td><td>19</td><td>14</td><td>8</td><td>4</td><td>1</td><td>0</td></tr><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr></table>	5	7	6	5	7	1	0	1	8	10	19	14	8	4	1	0	1	2	3	4	5	6	7	8	6.13	<table><tr><td>12</td><td>11</td><td>8</td><td>1</td></tr><tr><td>18</td><td>33</td><td>12</td><td>1</td></tr><tr><td>1-2</td><td>3-4</td><td>5-6</td><td>7-8</td></tr></table>	12	11	8	1	18	33	12	1	1-2	3-4	5-6	7-8	Es Cs	2.63
	5	7	6	5	7	1	0	1																																	
	8	10	19	14	8	4	1	0																																	
1	2	3	4	5	6	7	8																																		
12	11	8	1																																						
18	33	12	1																																						
1-2	3-4	5-6	7-8																																						
TRINES	<table><tr><td>1</td><td>10</td><td>14</td><td>2</td><td>2</td><td>3</td><td>0</td><td>0</td></tr><tr><td>9</td><td>15</td><td>22</td><td>9</td><td>7</td><td>1</td><td>1</td><td>0</td></tr></table>	1	10	14	2	2	3	0	0	9	15	22	9	7	1	1	0	8.71	<table><tr><td>11</td><td>16</td><td>5</td><td>0</td></tr><tr><td>24</td><td>31</td><td>8</td><td>1</td></tr></table>	11	16	5	0	24	31	8	1	Es Cs	0.72												
	1	10	14	2	2	3	0	0																																	
	9	15	22	9	7	1	1	0																																	
11	16	5	0																																						
24	31	8	1																																						

df=7

df=3





Comparison of Experimental and Control Subject Planetary Aspect Distributions within the Zodiac for Leary Level II Dom

104

Es = 26

Cs = 64

CONJUNCTIONS

5	8	9	2	2	0	0	0
4	26	26	8	4	0	0	0
1	2	3	4	5	6	7	8

CHI<sup>2</sup>

4.25

13	11	2	0	Es
26	34	4	0	Cs
1-2	3-4	5-6	7-8	

CHI<sup>2</sup>

0.87

OPPOSITIONS

11	8	4	1	2	0	0	0
35	19	6	3	0	0	1	0

6.07

19	5	2	0	Es
54	9	0	1	Cs

5.94

SEXTILES

2	7	12	2	1	1	0	1
6	7	13	14	16	6	1	1

15.58\*

9	14	2	1	Es
13	27	22	2	Cs

7.06

SQUARES

4	4	6	4	6	0	1	1
8	10	19	14	8	4	1	0
1	2	3	4	5	6	7	8

6.65

8	10	6	2	Es
18	33	12	1	Cs
1-2	3-4	5-6	7-8	

2.97

TRINES

7	9	5	2	3	0	0	0
9	15	22	9	7	1	1	0

5.43

16	7	3	0	Es
24	31	8	1	Cs

4.85

Comparison of Experimental and Control Subject Planetary Aspect Distributions within the Zodiac for Leary Level II Sub

Es = 35

Cs = 64

CONJUNCTIONS

4	14	8	8	0	1	0	0
4	22	26	8	4	0	0	0
1	2	3	4	5	6	7	8

8.55

18	16	1	0	Es
26	34	4	0	Cs
1-2	3-4	5-6	7-8	

1.36

OPPOSITIONS

14	10	7	2	1	1	0	0
35	19	6	3	0	0	1	0

7.19

24	9	2	0	Es
54	9	0	1	Cs

6.61

SEXTILES

11	4	7	6	6	1	0	0
6	7	13	14	16	6	1	1

9.75

15	13	7	1	Es
13	27	22	2	Cs

5.75

SQUARES

6	7	6	3	10	3	0	0
8	10	19	14	8	4	1	0
1	2	3	4	5	6	7	8

8.27

13	9	13	0	Es
18	33	12	1	Cs
1-2	3-4	5-6	7-8	

7.73

TRINES

6	8	12	6	1	2	0	0
9	15	22	9	7	1	1	0

3.95

14	18	3	0	Es
24	31	8	1	Cs

0.94

df=7

df=3



Comparison of Experimental and Control Subject Planetary  
Aspect Distributions within the Zodiac for MMPI D

106

Es = 22

Cs = 86

CONJUNCTIONS	2	9	6	3	1	1	0	0	CHI <sup>2</sup> 5.22	11	9	2	0	Es Cs	CHI <sup>2</sup> 0.33
	13	30	30	8	5	0	0	0		43	38	5	0		
	1	2	3	4	5	6	7	8		1-2	3-4	5-6	7-8		
OPPOSITIONS	8	4	5	2	1	1	1	0	12.39	12	7	2	1	Es Cs	9.01*
	46	26	6	5	4	0	1	0		72	9	4	1		
SEXTILES	2	5	4	4	6	1	0	0	1.49	7	8	7	0	Es Cs	1.37
	7	16	22	21	18	2	0	0		23	43	20	0		
SQUARES	3	5	5	4	4	1	0	0	2.32	8	9	5	0	Es Cs	1.66
	11	13	20	25	13	2	2	0		24	45	15	2		
TRINES	2	7	9	2	1	1	0	0	1.97	9	11	2	0	Es Cs	0.11
	17	27	27	8	5	2	0	0		34	35	7	0		

Comparison of Experimental and Control Subject Planetary  
Aspect Distributions within the Zodiac for MMPI Pt

Es = 43

Cs = 86

CONJUNCTIONS	2	13	15	10	2	1	0	0	8.96	15	25	3	0	Es Cs	2.66
	13	30	30	8	5	0	0	0		43	38	5	0		
	1	2	3	4	5	6	7	8		1-2	3-4	5-6	7-8		
OPPOSITIONS	19	10	6	4	2	1	1	0	6.53	29	10	3	1	Es Cs	4.96
	46	26	6	3	4	0	1	0		72	9	4	1		
SEXTILES	11	5	8	13	3	3	0	0	13.10*	16	21	6	0	Es Cs	2.28
	7	16	22	21	18	2	0	0		23	43	20	0		
SQUARES	6	10	12	6	6	1	1	1	6.10	16	18	7	2	Es Cs	1.97
	11	13	20	25	13	2	2	0		24	45	15	2		
TRINES	5	11	12	7	4	3	1	0	6.86	16	19	7	1	Es Cs	3.33
	17	27	27	8	5	2	0	0		34	35	7	0		

df=7

df=3

Comparison of Experimental and Control Subject Planetary  
Aspect Distributions within the Zodiac for MMPI Sc

107

Es = 54

Cs = 86

$\chi^2$

$\chi^2$

CONJUNCTIONS

5	21	16	7	2	3	0	0
13	30	30	8	5	0	0	0
1	2	3	4	5	6	7	8

6.80

26	23	5	0
43	38	4	0
1-2	3-4	5-6	7-8

Es

Cs

0.59

OPPOSITIONS

26	14	7	4	1	1	1	0
46	26	6	3	4	0	1	0

5.13

40	11	2	1
72	9	4	1

Es

Cs

2.84

SEXTILES

14	10	11	11	5	3	0	0
7	16	22	21	18	2	0	0

11.34\*

24	22	8	0
23	43	20	0

Es

Cs

4.89

SQUARES

7	9	14	9	8	3	3	1
11	13	20	25	13	2	2	0
1	2	3	4	5	6	7	8

5.78

16	23	11	4
24	45	15	2
1-2	3-4	5-6	7-8

Es

Cs

2.83

TRINES

8	12	15	12	3	3	1	0
17	27	27	8	5	2	0	0

8.04

20	27	6	1
34	35	7	0

Es

Cs

2.08

Comparison of Experimental and Control Subject Planetary  
Aspect Distributions within the Zodiac for MMPI Ma

Es = 41

Cs = 86

CONJUNCTIONS

3	11	15	6	3	3	0	0
13	30	30	8	5	0	0	0
1	2	3	4	5	6	7	8

9.03

14	21	6	0
43	38	5	0
1-2	3-4	5-6	7-8

Es

Cs

4.34

OPPOSITIONS

22	9	5	4	0	0	1	0
46	26	6	3	4	0	1	0

5.47

31	9	0	1
72	9	4	1

Es

Cs

5.00

SEXTILES

8	8	11	9	4	1	0	0
7	16	22	21	18	2	0	0

5.63

16	20	5	0
23	43	20	0

Es

Cs

3.10

SQUARES

7	8	10	6	5	2	3	0
11	13	20	25	13	2	2	0
1	2	3	4	5	6	7	8

5.57

15	16	7	3
24	45	15	2
1-2	3-4	5-6	7-8

Es

Cs

3.46

TRINES

11	5	10	10	3	2	0	0
17	27	27	8	5	2	0	0

10.29

16	20	5	0
34	35	7	0

Es

Cs

0.48

df=7

df=3

Comparison of Experimental and Control Subject Planetary  
Aspect Distributions within the Zodiac for MMPI HyD

108

Es = 45

Cs = 86

CONJUNCTIONS

7	12	12	9	5	0	0	0
13	30	30	8	5	0	0	0
1	2	3	4	5	6	7	8

$\chi^2$

4.94

19	21	5	0
43	38	5	0
1-2	3-4	5-6	7-8

Es

Cs

$\chi^2$

2.59

OPPOSITIONS

19	16	7	1	2	0	0	0
46	26	6	3	4	0	1	0

3.49

35	8	2	0
72	9	4	1

Es

Cs

1.87

SEXTILES

6	10	11	8	8	1	0	1
7	16	22	21	18	2	0	0

1.75

16	19	9	1
23	43	20	0

Es

Cs

3.20

SQUARES

4	7	11	12	8	1	2	0
11	13	20	25	13	2	2	0
1	2	3	4	5	6	7	8

1.04

11	23	9	2
24	45	15	2
1-2	3-4	5-6	7-8

Es

Cs

0.68

TRINES

11	14	8	8	3	1	0	0
17	27	27	8	5	2	0	0

4.13

25	16	4	0
34	35	7	0

Es

Cs

1.42

## REFERENCES

- Adderley, E. E., and Bowen, E.G. Lunar Component in Precipitation Data. Science, Sept. 7, 1962, 137, 749-750.
- Astrology: Fad and Phenomenon. Time, March 21, 1969, 93, 47-8+.
- Bortels, H., Beziehungen zwischen Witterungsablauf, physikalischchemischen Reaktionen, biologischen Geschehen und Sonnenaktivität, Naturwissenschaften, No. 8, 1951. Cited by M Gauquelin, The Scientific Basis of Astrology. New York: Stein and Day, 1969, p. 236.
- Bradley, D., Woodbury, M., and Brier, G. Lunar Synodical Period and Wide Spread Precipitation. Science, Sept. 7, 1962, 137, 748-749.
- Brown, F.A. Living Clock. Science, 1959, 130, 1535-1544.
- Brown, Webb, and Brett. Magnetic response of an organism and its lunar relationship. Biology Bulletin, 1960, 118, No. 10.
- Chapman, L. J. A Search for Lunacy. Journal of Nervous and Mental Diseases, 1961, 132, 171-174.
- Choisnard, P. Preuves et bases de l'astrologie scientifique, Paris, 1921. Cited by M. Gauquelin, The Scientific Basis of Astrology. New York: Stein and Day, 1969, pp. 137-141.
- Clark, V. An Investigation of the Validity and Reliability of the Astrological Technique. The Aquarian Agent, Sept. 1970, 1, No. 10, 2-4.
- Dahlstrom, W. G., Welsh, G. S., and Dahlstrom, L. E. An MMPI Handbook-Volume 1: Clinical Interpretation. Minneapolis: University of Minnesota Press, 1972.
- Darrach, H. B. Jr. Up Horoscope! Life, Feb. 22, 1960, 48, 96-8+.
- Digging the Stars. Newsweek, Jan. 13, 1969, 73, 78-9.
- Dobyns, Z. Personality Assessment through Astrology. The Aquarian Agent, Aug. 1970, 1, No. 9, 2.
- Düll, T. and B., Ueber die abhängigkeit des Gesundheitszustandes von Plötzlichen Eruptionen auf der Sonne und die Existenz einer 27 Tagigen Periode in den Sterbefällen, Deutsche Medizinische Wochenschrift. 61:95, 1935. Cited by Friedman and Becker, Nature, Nov. 16, 1963, 200, 626.
- Farnsworth, P. R., What about Astrology? Music Educators Journal, 1939, 26, No. 1, 43-4.

- Fraud in your Future? popularity of astrology in France. Newsweek, Sept. 14, 1964, 64, 56.
- Friedman, H., Becker, R.O., and Bachman, C.H. Geomagnetic parameters and psychiatric hospital admissions. Nature, Nov. 16, 1963, 200, 626-628.
- Gauquelin, M., The Cosmic Clocks: from Astrology to a Modern Science. Chicago: Henry Regnery Co., 1967.
- Gauquelin, M., The Scientific Basis of Astrology. New York: Stein and Day, 1969.
- Hathaway, S. R., and McKinley, J. C. Minnesota Multiphasic Personality Inventory. Manual for Administration and Scoring. (Rev.) New York: The Psychological Corporation, 1951.
- Hone, M. E. The Modern Text Book of Astrology. (Rev.) London: Lowe & Brydone Ltd., 1968.
- Jung, C. G. The Interpretation of Nature and the Psyche. New York: Pantheon Books, 1955.
- Krafft, K. E., Traité d'astrobiologie, Paris, 1939. Cited by M. Gauquelin, The Scientific Basis of Astrology. New York: Stein and Day, 1969, pp. 141-3.
- LaForge, R., and Suczek, R. The interpretation dimension of personality: III. An interpersonal check list. Journal of Personality, 1955, 24, 94-112.
- Leary, T. and Coffey, H. S. The prediction of interpersonal behavior in group psychotherapy. Psychodrama and Group Psychotherapy. Monograph, 1955, No. 28, pp. 3-47.
- Leary, Timothy. Multilevel Measurement of Interpersonal Behavior: A Manual for the Use of the Interpersonal System of Personality. Berkeley, Calif. Psychological Consultation Service, 1956.
- Leary, Timothy. Interpersonal Diagnosis of Personality. New York. Ronald Press, 1957.
- Menaker, W. Lunar periodicity with reference to live births. American Journal of Obstetrics and Gynaecology, 1967, 98, 1002-1004.
- Nelson, J. H. Short wave radio propagation correlation with planetary positions. RCA Review, 12, 1951.
- Omarr, S. My World of Astrology. New York: Wilshire Book Co., 1969.



- Ostrander, S., and Schroeder, L. Psychic Discoveries Behind the Iron Curtain. New Jersey: Prentiss Hall, 1970, pp. 357-365.
- Piccardi, G., Phenomenes astrophysiques et événements terrestres, conference at the Palais de la Decouverte, January 24, 1959. Cited by M Gauquelin, The Scientific Basis of Astrology. New York: Stein and Day, 1969, pp. 211-221.
- Podshibyakin, A. K. Solar flares and road accidents, New Scientist, April 25, 1968, 38, 160.
- Ptolomeus, C. Tetrabiblos, Cambridge, Mass: Harvard University Press, 1940.
- Sandia Laboratories. Moonstruck scientists, Time, Jan. 10, 1962, 99, No. 2, 48.
- Scheussler, R., Does the moon influence your moods? Science Digest, 1951, 30, 23-6.
- Sechrest, L. and Bryan, J. H. Astrologers as useful marriage counselors. Trans-Action, 1968, 6, 34-6.
- Siegel, S. Nonparametric Statistics for the Behavioral Sciences. New York: McGraw-Hill Book Co., 1956.
- Takata, M. Ueber eine neue biologischwirksame Komponente der Sonnenstrahlung (Heliobiologie), A.M.G.B., Series B. No. 5, 1951. Cited by M. Gauquelin, The Scientific Basis of Astrology. New York: Stein and Day, 1969, pp. 22-231.
- Taves, I., Astrology: fun, fraud or key-hole to the future. Look, May 13, 1961, 33, 96-104.
- West, J. A., and Toonder, J. G. The Case for Astrology. New York: Coward-McCann Inc., 1970.